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17. ABSTRACT (MAX. 250 WORDS) Three task forces, composed of school, college, and university staff members, were created to do the initial work needed to develop teacher education programs in selected cities.

The first group sought to define desirable behavior characteristics for teachers of culturally deprived students. Important characteristics are: warmth, understanding of course content concepts, orderliness and consistency of presentation, ability to solve unique problems, and an understanding of lower-class families and the problems they face. In addition the teacher should be committed to her assignment and be free from bias or prejudice.

The second task force was charged with development of curriculum content and experiences which would elicit behavior described by task force number one. The educational sequence should begin with a 4-year liberal education geared to problems of living in the present century, followed by a year's "internship" in an urban school where the teacher would work with colleagues in the school and study specific problems of urban education through experience and seminar courses at the university. Inservice training through conferences and group work would continue such education.

The third group is attempting to establish systems of evaluating the training programs described by group two. Some of the instruments use standardized tests and interviews while others are complex teacher-and student-ratings. Many areas of measurement still do not have instruments constructed for them.

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DEVELOPMENT OF SCHOOL-UNIVERSITY PROGRAMS FOR THE PRE-SERVICE EDUCATION OF TEACHERS FOR THE DISADVANTAGED THROUGH TEACHER EDUCATION CENTERS

Cooperative Research Project No. F-068

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Program for School Improvement
Chicago, Illinois

1965

The research reported herein was supported by the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare.

ACKNOWLEDGMENTS

The staff of an endeavor involving many people such as the School-University Teacher Education Project is indebted to more persons than we can mention. Thanks must be given, however, to the Superintendents of Schools and the Deans or other administrative officials of the participating Great City school systems and participating colleges or universities without whose support and cooperation this Project would not have been possible. Gratitude must be expressed to the Executive Committee, Dr. Benjamin C. Willis, President, and Dr. Samuel M. Brownell, Vice-President, and staff of the Great Cities Research Council through whose offices and assistance this Project was conceived, administered, and implemented. The Project was an outgrowth of several years of cooperative and creative planning on the part of staff members of the Great Cities school systems. Particular thanks are due to the Staff Group on Teacher Education of the Great Cities Research Council. The groundwork laid in the past few years by this group consisting of Mrs. Evelyn Carlson of the Chicago Public Schools, Dr. Carl Byerly of the Detroit Public Schools, and Dr. Dwight Teel of the Milwaukee Public Schools was essential in the formulation and implementation of the Project. Special thanks are due also to Dr. David Clark, Associate Dean of the Ohio State University, for his invaluable guidance and insight in helping this Project come to fruition.

A debt of gratitude is owed to Northwestern University, through whose offices this Project was administered. Dr. B. J. Chandler, Dean of the School of Education at Northwestern, has long been vitally interested in urban educational problems and his continuous support, assistance, and understanding were great assets as the Project evolved. Mr. Armin Beck as Staff Associate and Mr. William Shaw as Research Assistant rendered invaluable assistance in preparing the drafts of the Task Force Reports.

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CHAPTER I

THE PROJECT--BACKGROUND, OBJECTIVES, AND ACCOMPLISHMENTS

THE PROBLEM

The member cities of the Research Council of the Great Cities Program for School Improvement* are faced with a myriad of problems in obtaining and retaining adequate numbers of competent teachers for the disadvantaged children concentrated in the impacted, economically depressed areas of the city. The teacher of the disadvantaged is faced with a situation sufficiently unique that a pattern of educational preparation other than the traditional seems required to provide a reasonable chance of success.

Learning about the special problems of an urban community requires systematic preparation of the teacher. The prospective teacher may not have come from a city or may have come from a city but never have known or understood the city. Furthermore, many colleges and universities which prepare teachers are staffed with persons who, with few exceptions have never had or who have not recently had experience in a city school system.

Professional course offerings for the prospective teacher all too often are not related to the "laboratory" of the urban community. A semester of student teaching may be the extent of the contact with the city and this semester is too often spent in those city schools which are in the general proximity of the college or university and may not necessarily include the special problems posed by disadvantaged children.

City school systems are often asked to assume responsibilities in a most important part of teacher education, i.e., student teaching, without the role of city and college being carefully planned or agreed upon. The placement of student teachers, the opportunities they are given for work with pupils, their status in the school, the length of time they are in school, the supervision by the college, the preparation of the city-school supervising teacher, the follow-up of the student teacher, and the evaluation of the student teaching experience, in many instances, are nebulous areas about which often both the city and the college lack clarity as to purpose, and goals, criteria for evaluation, definition of terms, and allocation of roles.

---

* Member cities of the Great Cities Research Council are Baltimore, Boston, Buffalo, Chicago, Cleveland, Detroit, Houston, Los Angeles, Milwaukee, New York, Philadelphia, Pittsburgh, St. Louis, San Francisco, and Washington, D. C.

Cities and Universities Cooperate. The schools of the Great Cities and cooperating colleges and universities have mobilized their combined resources to provide pre-service and in-service programs for prospective teachers that will overcome the shock of the impacted, economically depressed areas of the city and will provide professional experiences to develop teachers capably equipped to teach disadvantaged children. It is believed that the teachers participating in these school-university pre-service and in-service professional programs will be markedly better teachers than teachers receiving traditional preparation, and furthermore will devote careers to teaching the disadvantaged.

The Great Cities Research Council has long been concerned with the problem of teacher education. Many staff sessions and meetings of the Council have been devoted to discussion of this critically important area. The Superintendents, professional staffs, and board members of America's largest city school systems have long recognized that amelioration of the social and economic problems confronting disadvantaged youngsters is largely predicated upon providing quality public education. The vital component of any effort to maximize the benefits to be derived from education is the provision of well trained and competent teachers who are cognizant of the complex problems confronting their students.

In June of 1963 the Great Cities Research Council in cooperation with Northwestern University conducted a Research Seminar on Teacher Education. (Cooperative Research Project No. G-011.) This Seminar which was supported by a grant from the Cooperative Research Branch of the United States Office of Education was attended by behavioral and social scientists and teacher educators from institutions of higher education as well as by Superintendents and other representatives of the Great Cities school systems. The Seminar directed by Dean B. J. Chandler of Northwestern University and chaired by Mrs. Evelyn F. Carlson of the Chicago Public Schools, provided the stimulus not only for increased intercity communication but also intensified the dialogue between teacher education institutions in metropolitan areas and the large city school systems in which many of their graduates plan to serve.

As an outgrowth of the Research Seminar, some eleven of the Great Cities envisioned the establishment of cooperatively operated school-university centers to be located in disadvantaged areas to serve as the focal point for practical field experiences for teacher education. Superintendents of Schools from participating cities contacted and secured declarations of interest and intent from colleges or universities to cooperate in the development of such programs and centers for the education of teachers for the disadvantaged.

A proposal was submitted to the USOE for support of the establishment of these centers and the Cooperative Research Branch funded a development grant to provide additional time for cooperative planning of the centers in the respective cities.

The objectives of the developmental activities were: (1) to describe teacher behaviors required for satisfactory teacher performance in depressed urban areas; (2) to describe teacher education curricular content and experiences most likely to elicit the behaviors described in (1); (3) to identify criteria against which success in (2) can be measured; (4) to develop prototype teacher education programs in selected cities designed to implement (2).

To attain these objectives, three task forces composed of school and college and university staff members were created:

1. Task Force #1 was charged with the development of a description of teacher behaviors required for satisfactory teacher performance in depressed urban areas.

2. Task Force #2 was charged with the development of descriptions of the teacher education curricular content and experiences most likely to elicit the teacher behaviors described by Task Force #1.

3. Task Force #3 was charged with the identification of criteria against which success of the curricular content and experiences developed by Task Force #2 could be measured.

The following Great City school systems and institutions of higher education participated in the aforementioned developmental project which was administered through Northwestern University.

City School System - in cooperation with -	College or University
Baltimore	Towson State
Boston	Boston University
Buffalo	State University of New York at Buffalo and State University College at Buffalo
Chicago	Northwestern University
Detroit	Wayne State University
Los Angeles	University of Southern California
Milwaukee	University of Wisconsin at Milwaukee
New York City	City University of New York
Philadelphia	Temple University
Pittsburgh	University of Pittsburgh and Duquesne University
Washington, D. C.	District of Columbia Teachers College

Each of the three Task Forces was composed equally of school system and college or university personnel with each participating city represented.

This report consists of the reports of the three Task Forces. These reports and the papers prepared by the consultants have served as the basis for the development of School-University Programs for the Education of Teachers for the Disadvantaged in the eleven participating Great Cities.

The three Task Forces met at three week intervals in the fall of 1964. The work of each Task Force focused upon the report of the preceding group. The Task Force meetings were barely more than two days in length so the reports cannot be considered to be comprehensive or polished products. They do represent, however, the collective thinking of highly qualified and experienced school system and university specialists on educational problems of great import. The Great Cities Research Council and Northwestern University's School of Education believe that these Task Force Reports with the accompanying papers prepared by eminent consultants in varied educational fields will serve as valuable resource documents. The increased national interest in the complex problems of educating thousands of economically deprived youth has been dramatically manifested by Congressional passage of the President's unprecedented educational program which focuses primarily on ameliorating education in disadvantaged areas.

The Task Force Reports of the School-University Teacher Education Project which comprise this document represent tangible evidence of the benefits to be derived from cooperative school system-university endeavors. Co-Directors, representing the city school system and cooperating university or college, from each of the eleven cities utilized these reports in preparing proposals for the establishment of special training centers in disadvantaged areas of their respective cities. These proposals have been submitted to the USOE and hopefully may become operational in some cities by September, 1965.

While the programs developed by city school systems and cooperating universities vary in administration, clientele, organization, etc., according to the separate local situations, the professional and field experiences to be provided by each center will be grouped around program cores such as: (1) the teaching-learning situation of the school in a disadvantaged neighborhood; (2) the social-psychological characteristics of the pupils, teachers, parents and community; and (3) continuing self-study and self-evaluation as a teacher of the disadvantaged. These proposals in no way presume to modify the expectation that an adequately prepared teacher should engage in the pursuit of a broad general education in the college of arts and sciences and should also engage in a substantive specialization in the academic field of his choice. The determination of general education and substantive specialization requirements is the responsibility of the future teacher's college or university. This proposal purports to arrange and provide the necessary professional education and field experiences for teachers of disadvantaged children.

The co-directors in each center have devised their own modus operandi. Different approaches in a demonstration program such as this must be encouraged if the results are to be meaningful. A prototype of the type of center to be established is described in the following paragraphs for illustrative purposes.

THE SETTING AND PROGRAM OF A PROTOTYPE CENTER

The center would be housed in a school located in a disadvantaged neighborhood of the city. The center would be staffed jointly by the school system and the college employing short-term assignment of regular staff members from both school and college who would then return to their permanent assignments, with staggered longer assignments for a smaller percentage of the staff. Each center would operate an experimentally oriented educational program for pupils from disadvantaged areas. In addition, special facilities would be set aside in which small group, extra class, counseling, cultural and recreational activities would be conducted.

The curriculum of the center would provide the future teacher with continued and extended contact with a school in a disadvantaged neighborhood. The series of course and field experiences required for the education of the future teacher would be with disadvantaged children through extended periods of observarion beginning with the initial level of teacher preparation in the cooperating college or university. Professional course work and participation in tutoring, recreational and other activities would be scheduled in the junior and senior years.

Student teaching in the center and other city schools would be a culminating experience of the undergraduate work and would lead into an "advanced practicum," a fifth year of internship in a school in a depressed neighborhood. The fifth year of internship would be an integral part of the preparation of teachers for the disadvantaged. The intern would be placed as a beginning teacher in a school in a depressed area of the city and continued under the joint supervision of the city school and university personnel.

Aspects of foundation courses in professional education would be integrated with practical experiences in the center classrooms. Several classrooms in the center would be equipped with an observation wall or a closed circuit television installation so that observations such as teacher structuring of expected behavior, use of peer controls, group behavior, guidance methods, methods of coping with poor behavior, and physical use of the classroom in dealing with group behavior would be observed and analyzed. In addition group attitude, communication channels, development of the power structures, lines of influence and group boundaries would be discussed and related to the theoretical concepts under consideration.

An inquiry center would be formed through the appointment of an anthropologist, sociologist and psychologist to the center to direct the interdisciplinary study of pupils, teachers and community characteristics. The methodologies of psychology, sociology and anthropology would be identified and studied by the student in the center's laboratory setting and the methodology of each discipline would be applied by the student through case studies of disadvantaged pupils and their parents.

Assignment of two or three pupils as case studies would be made during the student's initial work at the center. Inquiry using the methodology of the basic discipline would be intended to provide the student with an understanding of the pupil. This understanding could then be used to demonstrate, for example, applied psychology in education; organization of behavior, individual differences, perception, cognition, motivation, learning and evaluation as related to the educational process.

The continued and extended contact with the center allows the student a prolonged period in which to study the problems of the teacher as a teacher of the disadvantaged. The regularly assigned teachers in the center should be models for the student. Continuing self-study and self-evaluation would be carried on with the assistance of advisory and guidance personnel at the center. The student would be expected to thoughtfully examine, "Why do I want to do this?"

Over a period of at least three of the undergraduate years the experiences at the center would be broadened from observation to participation to actual student teaching in the classrooms of the center. Participatory experiences would include work-study programs in the immediate neighborhood. Students would be scheduled to work in afternoon and evening programs of the school and the community. Tutoring academically retarded students on a one to one basis is one example of a desired activity; others might include participation in after-school reading and arithmetic clinics, recreational activities, work with YMCA and YWCA and settlement houses.

Observation and participation in a variety of laboratory experiences in the center and the community would be directed toward the extended period of student teaching. The several levels and kinds of experiences in the classroom and the community detailed in the previous paragraphs are designed to be preparatory experiences preliminary to taking charge of a regular classroom. During the scheduled period of student teaching, the student teacher gradually moves from partial control of and responsibility for the classroom for limited periods of time to full responsibility for the classroom for limited periods of time to full responsibility for the classroom under the supervision of a cooperating teacher and other school and university personnel at the center. Each student enrolls for one semester of student teaching. Student teaching at schools in other than depressed areas of the city might complete the semester requirement.

Although the undergraduate degree may be granted upon the satisfaction of university requirements at the end of the normal four year period, the student would be expected to participate in an "advanced practicum" as a fifth year paid intern. The intern would be considered a beginning teacher in the school system, placed in a school in a depressed area of the city, paid a beginning teacher's salary and continued under the joint supervision of the city school and university personnel. Supervisory staff from the training center would work with the intern and space and facilities for an in-service seminar program would be provided at the center. Several of the cities are planning to focus center activities rather heavily upon the in-service education of teachers.

The several cities have varied the prototype described above in several ways. In a number of the urban centers it is planned to have involved in the projects, all the institutions of higher education situated in the area. Other cities are planning to have their centers service a cluster of schools in a disadvantaged area.

A REALISTIC JOINT APPROACH TO TEACHER EDUCATION

Inherent in the Task Force Reports comprising this document and the proposals which have emanated from the eleven cities is recognition of the need in teacher-training programs for experiences to acquaint prospective teachers with the gamut of social and economic problems indigenous to slums in the Great Cities. If environmental and economic living conditions are to be ameliorated in the large cities, education must play a central role. No other institution of society has comparable social penetration. The Task Force reports recognize the critical responsibility which educators can and must undertake in the disadvantaged areas of the large cities.

Despite the varied approaches which will be followed in the participating cities as the Projects evolve in the months ahead, an analysis of the eleven proposals which have been submitted will indicate the similarity of the problems confronting our largest school systems. During the course of the developmental grant's activities, the intercity cooperation which characterized the work of the school system and university project participants, was widely hailed. The value of pooling and sharing information relating to common problems became apparent.

The Task Force Reports reflect the type of cooperative public school-university or college endeavor that will be needed if America is to solve its very complex urban problems. These Task Force Reports and the papers prepared by consultants typify the school-university cooperation called for by President Johnson in his recent education message to the Congress. The President stated:

> Institutions of higher learning are being called on ever more frequently for public service--for defense research, foreign development and countless other programs. They have performed magnificently. We must now call upon them to meet new needs.
>
> Today, 70 per cent of our people live in urban communities. They are confronted by problems of poverty, residential blight, polluted air and water, inadequate mass transportation and health services, strained human relations and overburdened municipal services.
>
> Our great universities have the skills and knowledge to match these

mountainous problems. They can offer expert guidance in community planning; research and development in pressing educational problems; economic and job market studies; continuing education of the community's professional and business leadership; and programs for the disadvantaged.

The role of the university must extend far beyond the ordinary extension-type operation. Its research findings and talents must be made available to the community. Faculty must be called upon for consulting activities. Pilot projects, seminars, conferences, TV programs and task forces drawing on many departments of the university--all should be brought into play.

This is a demanding assignment for the universities, and many are not now ready for it. The time has come for us to help the university to face problems of the city as it once faced problems of the farm.

REPORT OF THE PROJECT

This report consists of three major subsections, a subsection for each of the Three Task Forces. Each Task Force report will be preceded by a statement summarizing the goals, methods, and purposes of the group. At the planning sessions for the Task Forces held in August, 1964, it was decided that the limited time available for the meetings necessitated that the consultants to each of the Task Forces prepare and distribute their papers before the group convened. It was felt that this procedure would be invaluable in launching the deliberations of the Task Forces with material that all the participants had read prior to the opening session. Thus each Task Force meeting was initiated by presentations from consultants. Subsequent deliberations and the ultimate report was predicated heavily upon the start given to the participants by the consultants who prepared the papers and were in attendance at the Task Force meetings. The introduction to each of the three Task Forces, except for Task Force Three, is thus followed by the consultants' papers with the Task Force Report itself comprising the final component of each of the chapters of this document. The appendices consist of a paper prepared for the Project concerning the use of television in teacher education and two of the papers written for Task Force Three.

CHAPTER II

REPORT OF TASK FORCE ONE

Task Force One of the School-University Teacher Education Project was charged with the responsibility of developing a description of teacher behaviors required for satisfactory teacher performance in disadvantaged urban areas. The Task Force met in Chicago from September 21-23, 1964. The roster of participants is listed below.

In planning for the Task Force meeting it was felt that prior attempts to describe teacher behaviors had overemphasized attitudes, values, and personality traits. The Planning Committee stressed the need to develop operational descriptions of critical teacher behaviors in depressed urban areas. In other words, there was a need to describe desired teacher behaviors in action or practical terms.

The Planning Committee emphasized the Task Force's need to have teacher behaviors categorized meaningfully. They felt that the identification of behaviors that were considered desirable for all teachers would provide an essential point of departure for identifying some specific desired behaviors for teachers of the disadvantaged. The underlying assumption which was generally accepted was that the answer to successful teaching of the disadvantaged lies not alone in the identification of novel teacher behaviors, but in more understanding and analysis of some of the general behaviors now exhibited by successful teachers in all types of schools.

The Task Force meeting thus commenced with Dr. Nathan Gage of Stanford University discussing his paper synthesizing the research in the general area of desirable behaviors of teachers. Dr. Richard Ellis of the Institute for Developmental Studies and Dr. Edmund Gordon of Yeshiva University followed with discussions of their papers which focused more specifically on the special educational needs of the disadvantaged and the particularized teacher behaviors desired in depressed urban areas.

The Task Force also had at its disposal and used extensively in its categorizations the results of informal surveys which were conducted in ten of the participating Great Cities school systems. These surveys consisted of a sampling of what successful practicioners regarded to be the most effective teaching behaviors, techniques, or practices to utilize in working with youngsters in depressed urban areas. The results of this ten city survey, which included reactions from some 250 successful classroom teachers of the disadvantaged, proved to be of great value to the Task Force.

The papers of the three consultants precede the Task Force report itself which was edited with the assistance of Dr. Charles Stewart, Director of Teacher Education for the Detroit Public Schools. Special thanks are due to Dr. Stewart for providing the conceptual framework for the categorization of behaviors upon which the report is structured.

SCHOOL-UNIVERSITY TEACHER EDUCATION PROJECT

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DESIRABLE BEHAVIORS OF TEACHERS

Nathan L. Gage, Stanford University

In a sense, this paper is intended to do for teacher behavior what was done for the behavioral sciences as a whole by Bernard Berelson and Gary Steiner in their Human Behavior: An Inventory of Scientific Findings. The spirit of this paper can be better understood by reference to their first chapter, which sets forth the nature and limits of their enterprise. In particular, I must subscribe to their semi-facetious caveat that "every finding ought to be preceded by three sets of initials: UCC, OTE, and IOC, standing for 'under certain circumstances,' 'other things equal,' and 'in our culture'" (3:7). I shall elaborate no further on these matters of scope, purpose, and method and shall instead refer the reader to that excellent chapter.

It is well to note at the outset, however, that the typical behavioral scientist is pessimistic about any attempt to list the positive knowledge derived from research on the behaviors of teachers. The field of research on teaching is widely regarded as barren of such findings. The majority opinion would agree with the one statement in the entire Berelson-Steiner volume (3:440-441) that deals with the subject of this paper:

> The effect of style of teaching or teachers' characteristics on teacher-student relations or on the number of ideas absorbed by the students (i.e., teaching effectiveness) is uncertain.
>
> There have been a large number of studies on the effect of the "classroom atmosphere" or the form of teaching, dealing with such matters as the authoritarian or democratic, dominative or integrative approach of the teacher and the relative emphasis on subject or student. But apparently there are no clear conclusions. Here is a recent summary of the summaries:
>
>> Even though there is a vast body of research on the relation of teacher characteristics to effectiveness in teaching, the reviews of this research (Domas and Tiedeman, 1950; Barr, Eustice, and Noe, 1955) show no consistent relation between any characteristics, including intelligence, and such teaching effectiveness (Brim, 1958, p. 32).

Since many other writers have written in a similarly gloomy vein, why is this paper being attempted? Why not reply negatively to the request for a summary of what research has to say about the desirable behavior of teachers, on the grounds that there simply is nothing constructive to be said?

The answer is two fold: (1) The desperate need to improve education in depressed urban areas inclines us to look upon our research knowledge more charitably, since even rather shaky findings may have some value in our present extremity. (2) The recent upsurge in the amount and quality of research on teaching may have rendered obsolescent the dismal conclusions of previous reviews of the literature.

At any rate, let us now look at what can be said about the desirable behaviors of teachers. In doing so, we shall omit any attempt at adequate documentation, we shall generally state conclusions without adequate defense or qualification of them, and we shall of necessity be anything but exhaustive. What follows is offered as a more or less personal and hurried effort to perform a service for a working group--and not as a careful, scholarly, and definitive sifting of the evidence.

Desirable Behaviors

Granted the provisos already stated, we find it possible to offer the following teacher behaviors (or characteristics of behavior) as "desirable" on the basis of correlational or experimental evidence of their relationship with desirable outcomes or aspects of teaching: warmth, cognitive organization, orderliness, indirectness, and ability to solve instructional problems.

Warmth. By warmth we mean the tendency of the teacher to be approving, to provide emotional support, to express a sympathetic attitude, and to accept the feelings of pupils. When observed by trained, reliable observers using

Flander's Categories for Interaction Analysis (11) to study their verbal behavior, "warm" teachers often make statements that are classified under these categories: "Accepts feeling...in a non-threatening manner" or "Praises or encourages...jokes (in ways) that release tension, not at expense of another individual." A "warm" teacher would also be likely to have a high score on the Minnesota Teacher Attitude Inventory (8). In this test such a teacher agrees with statements such as "Most children are obedient" and disagrees with statements such as "Children have a natural tendency to be unruly." Indeed, such teachers seem to have an inveterate incapacity to think poorly of other persons, especially children. On the California F Scale (17) which is intended to measure authoritarianism, such teachers score at the nonauthoritarian end. On Ryans' Teacher Characteristics Schedule (22), such teachers believe that "very few (less than 1 per cent) high school students intentionally try to tax the patience of the teacher" and that "very few people (not more than about 10 per cent) are influenced in their attitudes toward others by feelings of jealousy." On an inventory filled out by pupils, such teachers are often described as what Cogan (7) calls "Inclusive," or causing pupils to feel that their goals, sensibilities, abilities, and interests are taken into account.

In at least half a dozen studies, this kind of "warmth" has correlated positively with pupils', principals', and observers' favorable ratings of teachers (8, 17, 22). It sometimes goes along with the teacher's pupils getting higher scores on achievement tests, but not always. Flanders (11) found that pupils of "warm" teachers scored higher in mathematics and social studies, but Medley and Mitzel (18) failed to find such a correlation in reading tests. "Warmth" tends to correlate positively with the amount of required and also voluntary school work done by pupils (7) and, in general science classes, with interest in science (21).

For pupils with high "cognitive values," who consider the teacher's ability to explain things clearly to be of primary importance, even in the elementary school, teacher warmth may be less relevant (9). At the secondary school and college levels, it is also less relevant (12), especially when students are quite secure emotionally. Nonetheless, it seems safe to say that the teacher-pupil relationship in our society is such that warm teachers are more effective, by and large, in eliciting favorable attitudes from pupils. Social psychological theory (16:174-217) suggests that our tendencies toward consistency and homogeneity in our ideas, i.e., toward cognitive balance, push us toward liking someone whom we perceive as liking us. Pupils realize that the warm teacher likes them, and they tend to like him in return. And when they like him, they tend to identify with him, to adopt his values more readily, and even to learn subject matter from him more effectively. Whatever it may lack in surprise value, the finding that teacher warmth is desirable must be considered to be fairly well established.

Cognitive Organization. Insofar as a teacher aims to have his pupils acquire understanding, or meaningful learning, rather than mere rote knowledge, he should possess and exhibit the kind of intellectual grasp of his subject matter than I am here terming "cognitive organization." Such a teacher understands the processes and concepts of, say, multiplication, such as the reason for moving each sub-product one digit to the left when the multiplier has more than one digit (20). He has an understanding of the logical properties of a good definition, explanation, or conditional inference (19). He carries with him a set of "organizers" for his subject matter that provides him, and so his pupils, with "relevant ideational scaffolding" that discriminates new material from the previously learned and integrates it "at a level of abstraction, generality, and inclusiveness which is much higher than that of the learning material itself" (1:214).

Although disagreements still exist as to the reasons for the findings and as to the nature of "meaningfulness" and "organization," the broad propositions concerning the value of these factors in learning are strongly established. Katona (16), Brownell and Moser (5), and Ausubel (1), among many others, have documented the great importance for learning, retention, and transfer of clear, logical, and integrated organizations of ideas.

Most of the research on this kind of variable has not, however, been concerned with teacher behavior. Rather, it has dealt with learning materials--the content, passages, texts, reading matter, etc.--given to pupils. It is possible, however, to make inferences about desirable teacher behavior from such research. For example, toward the end of his report on social-interaction variables in teaching, Flanders felt compelled to comment, "There is no substitute for knowledge of what is being taught" (11:117). According to Ausubel, "The art and science of presenting ideas and information meaningfully and effectively--so that clear, stable, and unambiguous meanings emerge and are retained over a long period of time as an organized body of knowledge--is really the principal function of pedagogy" (1:19). Gagne (13) has formulated a theory of knowledge acquisition involving the analysis of tasks into hierarchies of subtasks and learning sets. But I am unable to cite research on the cognitive organization of teachers in the use of oral language--as distinguished from written language--that bears on this point. Wright and Proctor (25) developed a procedure for the systematic observation of verbal interaction in comparing mathematics lessons but did not correlate their measures with pupil learning. Bellack and Davitz (2) studied the language of the classroom in terms of "pedagogical moves," such as "structuring," and in terms of substantive categories such as "instructional-logical" meaning, but again there was no investigation of achievement as a function of these aspects of the discourse. We are forced to rely on studies of subject matter rather than teachers for our conviction that the teacher's behavior should reflect a clear and valid cognitive organization of what he is trying to teach.

Orderliness. By "orderliness" we mean the teacher's tendency to be systematic and methodical in his self-management. Cogan (7) called this a part of the "disjunctive-conjunctive" category of teacher behavior. In part it consists in teacher effectiveness in classroom management. It was also Ryans' (22) Pattern Y_0--one of the three major "patterns" of elementary and secondary school teacher behavior, which he derived in large part from factor analyses of observers' ratings of teacher behavior. Pattern Y_0 is the dimension of "responsible, systematic, businesslike vs. evading, unplanned, slipshod teacher behavior" (22:108). Coffman's (6), French's (12), and Gibbs's (14) factor analyses of college students' ratings of their instructors have yielded similar factors.

Cogan found no support for the hypothesis that mean pupils' ratings of their teachers' "conjunctivity" (i.e., orderliness) correlate with the mean amount of work reported by the pupils. But he did find positive within-classroom correlations between the ratings of a teacher's conjunctivity by individual pupils and the amount of work reported by the pupils. Ryans (22:260-265) found that teachers' scores on an inventory designed to measure correlates of Pattern Y_0 were significantly different for teachers nominated by their principals as superior in "systematic, responsible behavior" than for teachers rated as inferior in such behavior. Some of his other findings suggested that "the principals' conceptualization of the poor elementary teacher is heavily influenced by unplanned, slipshod, irresponsible classroom behavior" (22:265). The same was true of secondary school principals' concepts of poor mathematics, science, English and social studies teachers.

Indirectness. A tendency toward indirect methods of teaching consists in giving pupils opportunities: (1) to engage in overt behaviors, such as talking and problem solving, relevant to the learning objectives rather than merely listening to their teacher; (2) to discover ideas and solutions to problems rather than merely receiving them from the teacher. In Flanders' (11) categories, already mentioned, such teachers often say things classifiable as "Accepts or uses ideas of student" or "Ask questions." In their classrooms will be found relatively many instances of "Student talk--response" and Student talk --initiation." In Ryans' terms such a teacher would be high on Pattern Z_o, which reflects stimulating, imaginative, and original vs. dull and routine teacher behavior and is "associated with the teacher's ability to encourage pupil participation and initiative" (22:97). The idea of teaching concepts and generalizations by permitting pupils to discover underlying principles for themselves and of giving them less direct guidance is also related to the present concept of indirectness. In brief, indirectness consists in a teacher's realizing that it is not always desirable merely to tell a pupil what you want him to know and understand but that it is sometimes better to let the pupil become active, seek for himself, participate in the interplay of ideas, and make some "provisional tries." Indirectness in teaching represents a willingness to forbear furnishing the pupil with everything he needs to know. However, it does not consist in going to the other extreme and abandoning the pupil to his own devices.

Flanders (11) found that indirectness in teachers went along with greater achievement on the part of their pupils in units on geography and geometry. Correlated highly with Ryans' Pattern Z_o were observers' ratings of pupil behaviors on such dimensions as apathetic-alert and dependent-initiating (22:106). Ausubel concluded from his review of the experiments on learning by discovery that "Providing guidance to the learner in the form of verbal explanation of the underlying principles almost invariably facilitates learning and retention and sometimes transfer as well. Self-discovery methods and the furnishing of completely explicit rules, on the other hand, are relatively less effective" (1:171). The phrase, "the furnishing of completely explicit rules," characterizes the opposite of indirectness, and it is such teaching, unfortunately far too prevalent, that we consider undesirable. As Flanders put it, "Our theory suggests an indirect approach; most teachers use a direct approach" (11:114).

Ability to Solve Instructional Problems. By "ability to solve instructional problems" we mean the teacher's ability to solve problems unique to his work in a particular subdivision of the profession. The teacher should have more of such ability than persons peripheral to that subdivision (24). For example, teachers of intermediate-grade arithmetic should be better at solving problems in teaching such arithmetic than, in order of increasing peripherality, teachers of primary-grade arithmetic, secondary school teachers of non-mathematical subjects, or college-educated persons who do not teach at all.

What kinds of problems should a teacher of intermediate grade arithmetic be especially able to solve? Turner's test (23) contained a task in which the teacher was given a set of arithmetic exercises. The teacher's task was to judge how closely related the set was to each of ten statements of skill or understanding, such as "To increase skill in using division to answer practical questions involving money," and "To develop skill in discriminating which arithmetic process is most efficient in solving a problem." In another task the teacher is given a set of solutions by Jimmy B. to ten long-division examples and is asked to decide "whether Jimmy B., whose work is shown below, has made any errors significant enough to hold an interview with him concerning those errors. If you decide he has, your next problem is to decide which errors seem most significant, and should thus be the focus of the interview with Jimmy." After the teacher decides, he must judge whether each of ten kinds of errors (e.g., errors in subtraction facts) should: (a) be the focus of the interview; (b) possibly be included in the interview, but not focally; or (c) not be included in the interview.

Turner reported that intermediate grade teachers of arithmetic scored significantly higher on his test than did forty-one non-teachers of elementary school arithmetic (nurses, businessmen, housewives, and secondary teachers). Similarly, the "problems showed some power to differentiate among teachers of varying training and experience...(and) teachers who were rated by supervisors significantly above average in skill in teaching arithmetic had significantly higher mean problem-solving scores than did teachers rated distinctly below average. Pupils taught by high-scoring, problem-solving teachers achieved significantly more than pupils taught by low-scoring teachers" (10:245-246).

Although the work of the Indiana University group is continuing in an effort to refine and extend this approach, results thus far seem adequate to support the altogether plausible proposition that good teachers possess ability to solve technical problems in instruction. Apart from the social-emotional aspects of teaching behavior, the more strictly cognitive-intellectual ones, and the managerial phases of their work, good teachers need a body of problem-solving skills unique to their grade-level and subject-matter.

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LOOKING TOWARD DESIRED BEHAVIORS IN TEACHERS OF THE DISADVANTAGED

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Leaders in the fields of sociology, psychology, and education are increasingly concerned with studying the so-called disadvantaged child and with examining the factors related to his apparent lack of success in school. Studies conducted by the Institute for Developmental Studies (IDS), directed by Dr. Martin Deutsch, have focused principally on urban children from lower socioeconomic groups whose cultures are marginal to the main stream of American life. The studies are longitudinal and cross-sectional examinations of the integration of social, psychological, and developmental factors as they affect intellectual growth and school performance of the child. These studies have found that the disadvantaged, culturally deprived child grows in a world and develops in a manner that is both quantitatively and qualitatively different from his more advantaged counterpart.

The following discussion is a brief review of sociological and psychological research findings of IDS and other investigators. These findings should have many implications for teacher training and orientation designed to produce desirable behavior in teachers of the disadvantaged. The difficulty, of course, is that the distance is great between the implication and the productive implementation. Even after we recognize and understand some of the problems involved in teaching culturally deprived children, we are still a long way from achieving valid and reliable teacher education and from developing a successful curriculum. What the teacher does or should do in the classroom and how the teacher can be helped to best do the job are still largely unanswered questions.

In our discussion let us begin by looking at the child. Hunt (13) points out that the number, variety, and quality of a child's experiences affect his intellectual and psychological development. Whereas an environment that might be described as quantitatively and qualitatively rich in meaningful stimuli tends to facilitate a child's growth in many directions, cultural deprivation characteristic of other situations can fail to provide the necessary experiences required to foster adequate development. Considerable evidence is available to support this view. At this early stage in our studies, however, it is evident that the relationship between experience and development is most complex and that cause and effect can be considered only in terms of gross patterns.

The general environment in which the disadvantaged child is raised is frequently characterized as a slum. The slum environment has been found to have deleterious effects on the intellectual, emotional, and physical development of its inhabitants. Deutsch (5,6) has identified several conditions characteristic of the slum environment that produce and affect the child's experiences and has attempted to isolate those factors that seem to be most influential in the development of personality and intellect under deficient sensory circumstances. Significant patterns are beginning to emerge from the statistics describing the slum segment of our population and their environment.

This group typically has the highest unemployment, has a high incidence of welfare support, and experiences chronic economic insecurity. Predominantly Negro, it lives in segregated neighborhoods that suggest only a hint of the social ostracism to which the group is subjected. Broken families are common, and the group as a whole contributes disproportionately to the statistics of social deviancy and delinquency. Housing is substandard, overcrowded and often lacking adequate sanitary facilities.

More to the point of our discussion here is the paucity of organized sensory stimuli that characterizes both the environment and the human relationships in the environment. The visual stimuli to which the child is exposed are generally of a limited range. There is little color variety. Few, if any, pictures hang on the walls, and the few household objects are usually repetitious, lacking in form and color variations. In a cluttered apartment the child's discrimination of even a limited range of visual stimuli is often obstructed by their "noisy" presentation.

Under these circumstances the development of the visual sense is faulty and incomplete. The child has difficulty in correctly discriminating figure-ground relationships, for example. His spatial organization of the visual field is confused and incomplete. Demands of the school frequently assume that the child has developed these skills. Even such a simple thing as a teacher holding up a lovely, full-color picture of a swing set in the park would mean little to one who has not learned to attend to the relevant visual stimuli. In the case of a metal swing, the relevant stimuli (the _figure_ of figure-ground) are the pipes, chain, and seat making up the swing. Irrelevant stimuli (the _ground_ of figure-ground) include green grass, brown dirt, trees, sky, and clouds. Ability to discriminate between relevant and irrelevant stimuli is a learned characteristic. The situation becomes even more difficult where the referants are symbolic rather than "real," as in reading words.

"Noisiness" is even more characteristic of the auditory stimuli that the child encounters in the overcrowded slum. A diffusion of a great variety of auditory stimuli is generated by people and vehicles in the streets, television and radio sets, and several people crowded in each room. Just as the child may not have developed visual discrimination skills, similarly he may have had no practice in auditory discrimination. A recent study in this area by Cynthia Deutsch (4) notes that as crucial as the intactness of the brain are the variables related to experience and exposure to adequate stimuli. The child's environment is often noisy with sounds that simply are not meaningful.

The fact that training is largely a "background sense" in any case (Myklebust 1960--quoted by Cynthia Deutsch, 4:28) intensifies the problem of noise in auditory presentation and contributes to learning inattentivity. Myklebust points out that since auditory stimuli are always present and unavoidable, noise might be particularly prone to a "training out" process, such as purposeful inattentivity.

Non-meaningful stimuli may contribute to the child's learning to be inattentive, with the result that incoming stimulation is further reduced by too infrequent reinforcement. If we may conclude that visually and auditorily noisy environments actually help the child to learn inattention, we may also conclude that this situation places the child at a disadvantage for at least two reasons. Attention to the teacher is required in the classroom, and attentivity is related to memory. The disadvantages of learned inattentivity are readily apparent in the school situation, where attention to the teacher is traditionally of basic importance to further learning.

It appears that at least a minimum of auditory discrimination skills is necessary to develop good reading skills. Our data indicate that poor readers within social class groups have significantly more difficulty in auditory discrimination than do good readers. This difference between good and poor readers is greater for the lower-class group. An implication from the Cynthia Deutsch report (4) is that a less noisy and more speech-directed environment is conducive to acquisition of auditory skills that affect reading ability. This is not meant to suggest, however, that the situation could be rectified by the advocation of traditional teacher exposition. Exposition may tend to be too lengthy for the child's poorly developed attentive powers and may provide for little verbal interaction between teacher and child, only duplicating the faulty home situation rather than correcting it. The school environment should include many varieties of situations and opportunities for verbal interaction between adult and child as well as between child and child. Observation of disadvantaged children reveals that they tend to focus on nonessential attributes of objects or events and have considerable difficulty in providing proper labels. Interaction can provide focus and corrective feedback for the child.

In his noisy, overcrowded home the child is not often actually spoken to. The few words directed toward him are likely to be monosyllabic exhortations. Prolonged conversation between adult and child, routine in the middle-class home, is unusual. The large number of siblings and the lack of adult free time are likely to deny the child opportunity for individual attention. Slum families usually lack educated adults who might be expected to guide the child, encourage him to explore his world, and encourage him to ask questions. These factors, combined with others, deprive the child of corrective and reinforcing feedback that is vital to his development.

Language itself is a crucial ingredient in development of perceptual and cognitive areas. And, according to Piaget (16), spoken language comes only after images have been developed from repeated encounters with objects and events. An issue here might be the quality, variety, and strength or meaningfullness of objects and events encountered by the lower-class child. The influence of variables associated with social class on language acquisition has appeared in the work of Young (19), Irwin (14), Templin (18), Anastasi (1), and Bernstein (2).

Bernstein emphasizes the existence of different language systems in middle- and lower-class groups. The middle-class group has an extensive or elaborated system of language, while a restricted system of language is characteristic of the lower-class group. It appears that speech sequences in the lower-class seem to be limited temporally and poorly structured syntactically. A consequence would be a deficit in a child's language development in syntactical organization and subject continuity.

The influence of the slum environment appears to manifest itself not so much in the quantity of words a child uses, as in their quality as expressive terms and in the manner in which they are structured in relation to one another according to studies conducted by Deutsch, Maliver, Brown, and Cherry (10). Perhaps this is to be expected if we take into account the fact that the child's environment is not characterized by a paucity of sounds, but rather by totally unrelated sounds presented in a disorganized and fragmentary manner and without corrective feedback.

Data collected by Deutsch and his associates indicate that socio-economic status more powerfully determines language behavior than does racial membership. The same study notes that as Negro children move from first through fifth grade, "the discrepancy between their IQ scores and those of white children increases, while the discrepancy between the two groups' scores on the language measure of this research decreases" (10:118). The acquisition of language is a cognitive process that at least in its early stages, influences the acquisition of learning sets. This influence is not restricted to verbal activity. Thus the nature of a person's early auditory "education" becomes even more crucial.

Auditory learning has an effect not only on language but also on the development of memory. Attentivity is directly related to the ability of a person to remember what he has experienced. An impediment to the development of memory is the relative lack of sustained verbal contact with adults, for it is by recalling shared experiences that the adult can communicate to the child a sense of relatedness of past and present.

The disorganized slum environment is characterized by a lack of a well-structured routine for activities in the home. The middle-class child grows up being familiar with routine and with the function of time in structuring the day. The lower-class child is not exposed to the concept of time as a governing force until he enters school. This absence of routine may also contribute to the fact that the slum child tends to be more present-oriented and is deficient in memory. If there exists for the child no recognizable sequence of activities recurring in time, to which he can refer back in assessing or re-"cognizing" an event, then he is naturally more dependent on the product of the present moment. He may not be aware that the school has certain time-related expectancies of him during the day or the week. Learning situations in the school may be perceived by him only as isolated events with no relation to that which has gone before.

The disadvantaged child enters school with a qualitatively different preparation for the rigors anddemands of the learning process and behavioral requirements than does the middle-class child. Although the child probably enters school initially with a neutral attitude, chances are strong that he will experience school failure and eventually become a school dropout. His dropout may at first be psychological, but this may be followed by physical dropout. Motivation for the child has probably been reduced by a history that includes lack of expectation of reward, verbal or tangible, for performance of and successful completion of tasks. The parents not only fail to set tasks for the child, observe their performance, and reward their completion, but also fail to express disapproval when the child does not approach or complete tasks set by others.

Success or failure in school experiences can contribute to negative or positive self-feelings (6). Our studies indicate that the disadvantaged child may develop a negative self-image through "frustration inherent in not understanding, not succeeding, and not being stimulated in the school, while being regulated by it" (5:22). The area of self-concept, however, continues to remain little known to us and is the subject of more intensive investigation.

The inability of the child to succeed in school is further explained if we understand that his cultural environment is different from the culture that molded the school. There is a vast cultural discontinuity between his environment and that which produced and trained his teacher. We previously noted the discontinuity that exists in the value placed in time. A more dramatic discontinuity is in the use of language. It has not yet been ascertained to what extent language differences between lower-class children and middle-class teachers, with middle-class training, affect classroom communication. It is obvious, however, that the lack of contiguity and continuity of the child's culture with that of the school places the child at a distinct disadvantage.

A slum environment may produce in the child certain strengths and coping mechanisms. For example, he may have become accustomed to being cared for by a number of different individuals. Being forced to fend for himself at an early age, he may acquire a degree of autonomy and independence. The lack of parental demands for performance would keep him free of the anxieties usually associated with such pressures. As Deutsch points out, however, the strengths and positive features associated with lower-class life, unfortunately, tend not to be congruent with the demands of the school.

In one approach to assisting the disadvantaged child Fowler (12) stresses the importance of providing cognitive stimulation appropriately organized to the capabilities of the preschool child. Scott (17) indicates that there may be critical or optimal times for stimulation in many aspects of development and that the time of initial socialization is the period of greatest plasticity. The three- or four-year-old child is at a developmental level that roughly coincides with Piaget's "preoperational stage." It is at this time that the child is becoming socialized, is developing sensory discrimination, and through manipulation of objects and acquisition of language is developing perceptual and cognitive learnings. Implied here is the merit of providing appropriate experiences basic to social and intellectual development of the young child. More emphatically, the school should provide highly qualified supervisory and teaching staff to operate specially designed programs for disadvantaged three- and four-year-old children.

In a study of 543 Negro and white first and fifth grade children by Deutsch and Brown (11), the children were divided into those who had had "some preschool experience" or "no preschool experience." The report says, "Presence or lack of preschool experience at grade five more highly differentiates intelligence test scores than it does at grade one" (11:32). The investigators conclude that the data support the concept of cumulative deficit, i.e., that the effects of deprivation accumulate and exert more influence at later stages than at earlier ones. See also Benjamin Bloom, Stability and Change in Human Characteristics (3).

While we postulate that a compensatory program designed to reverse the effects of deprivation may be of most benefit to the plastic three- or four-year-old child, several concomitant issues arise. One issue centers on curriculum organization. A carefully conceived and designed compensatory program initiated at this level would certainly merit a continuation through each succeed-upward level. It may well be that we would find that children should be grouped by "experience" age rather than by chronological age. Deutsch (6) states that the major curriculum innovations of the past still fail to reach the disadvantaged child because the innovations are often based on the invalid assumption that the child has reached a particular level in underlying skills.

Another issue concerns the use of curriculum materials. Deutsch states that the probability of the child's success is increased when the material presented is consistent with his developmental level (9). Hunt speaks of this consistency in terms of "match" (13). Here, too, we may look at developmental levels as described by Piaget as well as contributions to methodology from parts of Montessori.

Parents of the children should certainly be included in the learning program, particularly parents of preschool and kindergarten children. Experience at I.D.S. shows that parents are usually willing to attend meetings at which the program is explained and actual materials and methodology used are demonstrated. Some carry-over from the school to the home may then be facilitated. Disadvantaged parents may have the desire or motivation to want education for the child, but they lack an understanding of how to make this operative for the child (17).

Work at I.D.S. indicates that the disadvantaged child is deficient in the following areas that are apparently essential to scholastic success: Language, auditory and visual discrimination, concept formation, and self-concept. These areas represent the WHAT. We must also face the HOW. It is hoped that the foregoing discussion may suggest areas and content for development of teacher-training programs and for development of a curriculum designed specifically for work with the disadvantaged child.

We have seen how the effectiveness of the school in meeting the disadvantaged child's needs is diminished. Neither the child nor the school staff is prepared to span the cultural discontinuities that exist. Spanning such gross discontinuities is difficult for everyone. Responsibility for the unfavorable learning situation cannot be placed only on the school, but the school most directly reflects society's failure. Teachers, white and Negro, have not been trained in the knowledge of the needs, limitations, and unique strengths and weaknesses of disadvantaged children. Deutsch (6) points out that teachers are as likely to be confused as to the child's expectations as the child is about the school's expectations. Some teachers simply establish low expectations for the child and anticipate his failure.

The teacher who possesses knowledge, but is without a full repertoire of relevant technique, methodology, and application remains at a distinct disadvantage.

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DESIRED TEACHER BEHAVIOR IN SCHOOLS FOR SOCIALLY DISADVANTAGED CHILDREN

A Summary Presentation by Edmund W. Gordon
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Certain political, economic and social factors have combined in recent years to bring the condition of underdevelopment in human beings, in all parts of the world, to the central focus of our attention. Nowhere are the handicaps imposed by deliberate and accidental underdevelopment of human resources more a source of embarrassment and concern than in the United States in the latter 20th Century. As is often the case when faced with an embarrassing situation, we have sought someone to blame and who is more available for condemnation in this situation than are professional educators. Everybody knows that the school has not created the conditions that make for social disadvantage and certain types of deprivation in large numbers of children and adults in the United States. But most people also know that, despite the tremendous gains in educational technology and educational resources, professional educators have done relatively little to significantly change the life chances of the disadvantaged through pedagogical intervention.

The overview of related opinion and research presented in the paper by Mr. Ellis indicates something of the dimensions of the problem with which we are concerned. At the risk of duplication, I want to identify a bit more specifically the nature of the problem as it is reflected in our growing knowledge of the characteristics of school children who have been handicapped by disadvantaged social and economic conditions of life. I specifically refer to those who have been handicapped by these conditions so that we may avoid the error of over-generalization. The characteristics to which we refer are encountered with high frequency in this population but are not universal to it. Nor is there a single pattern into which these characteristics fall for all children so handicapped. As in our concern with all other children, the facts of individualization and idiosyncratic response must be respected even while we try to arrive at categories or taxonomies around which programs of instruction for groups of children may be developed.

The fact of cognitive and non-cognitive differences between children who grow up in communities marked by socio-economic pathology and cultural-experiental atypicality and children who attend school in more traditional, stable and economically secure communities is well known. However, before one can seek to overcome these differences--or even to minimize them--one must first adopt a position as to the fundamental cause of these differences. Some investigators have attempted to explain these phenomena on the basis of intrinsic social class differences. There have also been some attempts to attribute these differences to purported racial and ethnic differences in intellectual capacity. Those holding either of these views have used the data from intelligence and achievement tests on such children and their parents to support the position that the higher incidence of school adjustment and achievement problems among the socially and culturally disadvantaged is the result of inherent group-wide inferiority on their part.

Other investigators concerned with this phenomenon have been struck by the observation that despite generally comparable initial levels of intelligence in preschool children chosen from variable ethnic, social and economic strata, the academic achievement of children coming from underprivileged communities falls progressively further below the norm as school attendance in these communities continues (Klineberg, Clarke, Deutsch, Gordon, Polier, Sexton). This observation has led to the conclusion that achievement differences between the two groups have little to do with inherent differences in intellectual capacity per se but are greatly influenced by the experiences (or lack of same) peculiar to each group. A basic postulate upon which work with disadvantaged children must be based holds that conditions of social pathology, economic insufficiency and cultural-experiential norm variance have made for significant handicaps in the academic functioning of many children who come from disadvantaged communities. These handicaps are predominantly reflected in deficiencies in readiness, motivation, efficiency and achievement in academic learning situations. A second postulate which must guide our work holds that these learning disabilities can be identified and analyzed and that procedures for their correction can be developed and implemented within the context of regular public school programs.

The few systematic attempts that have been made to analyze the characteristics of academic functioning in underprivileged children enable us to identify several conditions which must be taken into account in planning and designing procedures for the more effective education of these children. In considering such conditions (some of which have been much more fully documented than others) again it must be recalled that none of these are found in all such children and that all of these may be absent in some such children. What we do have is a group of characteristics or conditions which are encountered in this population with sufficient frequency to deserve careful attention by educators.

1. These children have been found to show weaknesses in the utilization of abstract-symbols to represent and interpret phenomena. These weaknesses are reflected at all academic levels in vocabulary and language usage, reading comprehension, speed and word attack skills, and in formal quantification and computation.

2. Concept formation in these children tends to be content centered rather than form centered, i.e. concrete as opposed to abstract, with far greater emphasis given to inductive as opposed to deductive reasoning. Even

within the realm of inductive reasoning these children seem to be limited in their readiness to make accurate generalizations from the specific to the universal and to transfer knowledge utilizing perviously learned concepts.

3. Their styles and modes of perceptual habituation tend not to reflect those emphases which are important to academic efficiency. Although high levels of perceptual sensitization and discrimination are often present, these skills tend to be better developed in physical than in visual and in visual than in aural behavior. Probably of greater significance is the absence of any high degree of dependence on verbal or written communication for cognitive cues. Many of these children have simply not become attuned to the perceptual modes traditional to academics.

4. Many of these children show a marked lack of readiness for involvement with, attention to and concentration on the content of their academic experiences. There are few academic tasks which commit them to deep involvement. Work habits are frequently insufficiently developed. The high-interest demands of extra-academic experiences and the relatively low-interest demands of academic experiences leave them limited in their ability to inhibit responses to stimuli which are extraneous to academic learning and to disinhibit responses to stimuli which are pertinent to academic learning.

5. The degree and direction of motivation in these children are frequently inconsistent with the demands and goals of formal education. Although quality of aspiration is often depressed, it is usually consistent with perceptions of the availability of opportunity and reward. On the other hand, symbolic rewards and postponements of gratification appear to be inoperative as positive norms in motivation. Goals for these children tend to be more self centered, immediate and utilitarian. Although the values from which motivation is derived reflect dominant-culture concerns with status, material possessions,

in-group morality, Judeo-Christian Ethics, competition, etc., there is usually lacking a concern with esthetics of knowledge, symbolization as an art form, introspection, and competition with self. Drive is present but its direction and goals may not be complementary to academic achievement.

6. Attitudinal preparation, being closely related to motivational factors, is not infrequently a problem in planning education for these children. We have referred to utilitarian attitudes toward knowledge and have made inferential reference to negativistic attitudes toward the pursuit of knowledge. However, it is in the area of attitude toward self and others that our evidence is least clear. It has been observed by some that these children show affinity for in-group members and reflect distance or even hostility toward representatives of out-groups. This has been observed in peer as well as in non-peer relationships. Other observers have noted the high degree of respect and awe held for selected outgroup status persons or idealized models. Depressed self-concept has been noted as have tendencies toward self deprecation. On the other hand, some recent findings suggest that depressed self-concept is not a prevalent condition and where present may have little bearing on academic achievement. Probably both extremes are operative and may constitute a source of internal and external conflict.

In addition to these more generic functional characteristics, these children face very specific socio-cultural patterns in relation to (a) nutrition and health status, (b) geographic mobility, (c) family instability, (d) overcrowding and inadequacy in housing, (e) absentee parents, (f) economic insufficiency, (g) second and third class citizenship, and (h) the excessive and extraneous stimulation flowing from the experiential richness and abusiveness of communities marked by rapid social change or disorganization.

In our zeal to identify those characteristics which impede academic achievement in socially disadvantaged children, it is important that we not overlook positive characteristics which may be utilized in the educative process. Experience with youth gangs and delinquency as well as the literature on these topics provide ample evidence of the fact that selective motivation, creativity and proficiency are present in many of these children. From the same sources we find examples of complex symbolism utilized in special recall, association and generalization, and accurate perception of social, psychological and physical data. These children, as others, are capable of positive and negative identifications and are frequently found to be hungering for meaningful relationships with significant adults. They can be loyal friends or troublesome adversaries. In many instances, the fact of disadvantaged status and deficient experience have planted seeds of dissatisfaction with and rebellion against their lot which can be utilized as positive motivating forces. Insufficient attention has been given to the fact that many children who come from disadvantaged families and communities go on to rise above their origins and meet mainstream standards for academic and social achievement.

Children with the characteristics discussed above need many things. Some of their needs can be met within the framework of an excellent school program. Others of these needs must be met within the framework of the community in which they live. It has been noted that "The democratic problem in education is not primarily a problem of training children; it is a problem of making a community in which children cannot help growing up to be democratic, intelligent, disciplined to freedom, reverent to the goods of life--eager to share in the tasks of the age. A school cannot produce this result; nothing but a community can do so." The first pressing and immediate need of these children is for the modification of the environment--the society in which they live--so that the negatives in their individual characters may be corrected or produced in lesser abundance, and so that the neutrals and positives in their characters may be better utilized in their development.

On review of the identified characteristics of these children, it is readily noted that many are referable to several of the developmental tasks peculiar to readiness for successful school experience. Following the position set forth by Havighurst it would seem that in the absence of experiences leading to the mastery of prior developmental task areas, readiness for subsequent tasks is precluded or retarded. We do not know whether disturbance of the temporal and sequential relationships in the mastery of developmental tasks creates deficiencies which are totally repairable, partially repairable or irreversible. We do know, however, that maximum adjustment or achievement in areas dependent upon the mastery of these tasks is not possible without compensation for or correction of the noted deficiencies. It follows logically then that an attack upon the educational problems of children with these deficiencies should be directed toward the mastery of those developmental tasks upon which success in school is based. The school-oriented needs of disadvantaged children point clearly toward:

1. detailed qualitative appraisal of potential for learning, achievement in learning and the strengths and weaknesses in the individual child's mechanics of learning;

2. remedial instruction and special training in those skills, competences and processes which are essential to academic progress but which may not have been mastered in the prior formal and incidental learning experiences of the child;

3. special experiences and support designed to make better use of existing skills, competences, attitudes and values in the upgrading of academic and social productivity and the achievement of a satisfying life;

4. special experiences and support designed to enhance development of those attitudes and values upon which academic achievement is built; and

5. special help in offsetting the negative impact on school adjustment

> of concrete problems of daily living in communities and under conditions which are abusive to the minds, bodies, and spirits of children and adults alike.

What is indicated here is an approach to educational management which utilizes the best of traditional and progressive pedagogy. Riessman has called for a marriage between the two to meet the needs of the disadvantaged children. We need the structure, rules, discipline, authority, order, organization, and strong external demands for achievement from the traditionalists and we also need the progressivist's emphasis on motivation, learning by doing, examples drawn from the experience of the child--beginning in the immediate and moving toward the broad, the abstract, the cultural heritage.

We turn now to the central question with which this presentation is concerned, What specific teacher behaviors and attitudes are appropriate to the educational characteristics and needs of children handicapped by social and economic disadvantage?

1. Probably the over-riding demand of teachers of disadvantaged children is for an attitudinal commitment to hope and expectation that these children can learn and that the teacher can create the necessary conditions for their effective learning.

2. While we are dealing with attitudes, we must recognize that hope and expectation are necessary but not sufficient conditions for success. There must, in addition, exist the attitudinal capacity to be challenged by work with these children and the attitudinal readiness for controlled experimentation and innovation in directed learning.

3. Teachers of socially disadvantaged children will need to understand and appreciate the nature of the life conditions of their pupils--their homes, their communities,--and the significance of these conditions for learning and development.

4. Since the school must emerge as a major consistently stabilizing influence in the lives of these children, the teacher must understand the sociology of the school, the dynamics of its function and must be master of its appropriate utilization in the interests of these children.

5. For the foreseeable future, most of our teachers are not going to be the social peers of their disadvantaged pupils. Since we are beginning to appreciate the influence of the dynamics of intragroup

interaction for behavioral change, the teacher's competence as a guide to and utilizer of intragroup interactions can be a crucial counterbalance to the social distance and discontinuity so often referred to in this context.

6. The challenge presented by the atypical learner requires that the teacher possess competence and skill in the educational appraisal of each pupil. Such competence cannot be limited to quantification and classification of intelligence and achievement but must include qualitative evaluation and descriptive analysis of the learning function and potential in the child. Such appraisal should lead to educational prescription.

7. Children who are progressing at their expected rate need good teachers. Children who are not making it, in the system--who are handicapped by intrinsic or extrinsic conditions--require exceptionally good teachers with special competences. The skills to which I now refer are in the area of Psycho-educational Processes.

    a. Mastery of such content which enables them to be excellent teachers of children as well as excellent teachers of their designated subject matter. The plea here is for excellence in basic preparation as a teacher with the breadth and depth of knowledge and the quality of interpersonal skills that this implies.

    b. Skill in the utilization of knowledge and experience in an infinite variety of ways to achieve maximal learning in children whose learning styles and learning strengths are known to vary extensively.

    c. Skill in relating knowledge of physical, mental, psychological, social and educational status and of capacity and readiness for learning to the design of learning experiences and to the guidance of pupil development.

    d. Skill in the application of the laws of learning to academic, emotional and social learning situations.

    e. Skill in the utilization and development of materials and procedures leading to the use of appropriate aspects of the environment and in the use of oneself to influence and modify individual and group learning.

    f. Skill in the conceptualization of problems and in the utilization of qualitative and quantitative approaches to problem solution in the tradition of the scientific method as prerequisites to continued growth as a scholar and as a professional worker.

9. Integration of all of the above-mentioned types of understanding, knowledge and skill with personal attitudes and behaviors so as to reflect respect for human life and welfare, and commitment to the

> search for truth, the maintenance of integrity and the achievement of social productivity for the teacher as well as for the learner.

When one reviews these behaviors, it is clear that they hardly represent less than we would choose that all our teachers manifest. So is it not possible that the excellent teacher we develop for disadvantaged children may point the way to improved teaching for all children?

TASK FORCE ONE REPORTS

Task Force One of the School-University-Teacher-Education Project was charged with the development of a description of teacher behaviors required for satisfactory teacher performance in disadvantaged urban areas.

As Task Force One undertook its assignment, a large number and a great variety of desirable behaviors were suggested by individuals and accepted by the group. It became apparent to participants that some structure and taxonomy were needed if the report was to be comprehensible and useful. Various structures were considered and discussed at some length. It was concluded that the most appropriate structure would be an inductively derived categorization predicated on the principal needs of students.

Illustrative teacher behaviors are, therefore, grouped according to their relationship to major categories of pupil needs, needs which are present in the case of all pupils but which are especially critical in the case of the culturally disadvantaged. A few behaviors were so pervasive as to relate to all groups of pupil needs and were, therefore, placed in a special category (which has been called "X"). These groupings are not mutually exclusive or comprehensive. Some items are listed in more than one category. Other items could be placed in additional categories. Because of the time limitation the task force was only able to provide a skeletal framework in its efforts to group teacher behaviors.

Task Force One also felt compelled to describe briefly certain critical teacher characteristics and basic understandings crucially related to the desired teacher behaviors.

The task force realizes that the structure of its report was rather arbitrarily settled in all too short a time. Despite the inevitable imperfections of any taxonomical effort, the task force believes that the structural categories employed have considerable utility and value despite their admitted incompleteness.

This report consists of several sections. The first section describes briefly the environmental conditions that prevail in disadvantaged urban areas. Such a description is important because the illustrative teacher behaviors and their implications for teacher education must be viewed from the context of this environmental milieu.

The major portion of this report consists of a description of illustrative teacher behaviors that Task Force One considers to be desirable for satisfactory teacher performance in disadvantaged urban areas in the Great Cities of America.

SECTION ONE: THE SETTING OF SCHOOLS IN DISADVANTAGED AREAS

The teacher moving into a school in an impacted, economically deprived area of the city faces a unique situation. Visiting such a school, one becomes aware of the inadequacy of conventional classroom approaches based on the assumption that the child's cultural milieu outside the school is like that of the school. One can observe a lack of essential verbal skills, often socially unacceptable behavior, indifference to responsibility and to activities not related to immediate personal needs, and the results of poor health habits. Teachers find that their training courses and experiences have not prepared them for this confrontation. They are at a loss for ways to "reach" pupils and parents, fail to secure satisfaction from their efforts, become frustrated, and request transfers.

The teacher of the disadvantaged is faced with a concentration of social and cultural deprivations that pose barriers to school learning and often lead to extreme deviant behavior. The cultural experiences of the disadvantaged child are often limited to those in his immediate community. In his world there is a lack of experiences appropriate for school learning and little reinforcement of school experiences in the home. Frequently, the child has never been to a museum, public library, concert, play, zoo, downtown department store, or large office building.

Many of the parents are indifferent about the child's performance in school or have low expectations for their children. The parents who feel concern do not know how to help their children. The teacher faces cultural values that are unfamiliar and sometimes distasteful. The neighborhood will reveal in many instances a lack of cohesive identity, no library, few yards, little grass, few or no flowers, and few trees. On the business streets there may be a tavern every third or fourth door, cheap floor shows, pool halls, groups of idle men, and evidences of alcoholism and dope addiction. Persons who operate businesses in the neighborhood, social agency and welfare personnel, teachers, and clergymen frequently live outside the community. Local leadership is limited, undeveloped, and often discouraged. Much of the adult population is passive, disinterested, and apathetic toward community or civic activities. The cumulative effect of these depressing cultural influences on pupils is a general unreadiness for school learning, little hope that school can really make a difference in their lives, and thus little motivation to set high goals for school achievement.

These factors: difficulty of "reaching" pupils and parents, ineffectiveness of traditional teaching techniques, shock of pupil behavior, lack of knowledge of varied cultural backgrounds, lack of instant successes for both teachers and pupils, and frequent requests for transfer, indicate the inadequacy of present teacher-education programs for teachers going into schools in the disadvantaged areas of the city.

SECTION TWO: DESCRIPTION OF ILLUSTRATIVE TEACHER BEHAVIORS

The three presentations indicated to the task force some of the difficulties in defining and pinpointing specific behaviors for teachers of the disadvantaged. The problems of semantics and varied definitions or interpretations of imprecise words which confronted the Task Force have long plagued taxonomical efforts in all fields of knowledge. Dr. Gage indicated that although his five dimensions of desirable teacher behavior have considerable support in substantive research, these five dimensions (warmth, cognitive organization, orderliness, indirectness, and the ability to solve instructional problems) can by no means be considered complete or definitive.

The difficulty of pinpointing behaviors as distinguished from attitudes, values, and motivational practices was apparent to the task force from the outset. As the participants sifted through reports made by "successful" teachers of the disadvantaged in ten of the Great Cities, it was obvious that many of the illustrative specific teacher behaviors would be desired in all teaching situations and not just the school setting of the disadvantaged in large urban areas. There was general agreement, for example, with the notion that all teachers should display "warmth," operationally defined by Gage as the "tendency of the teacher to be approving, provide emotional support, express a sympathetic attitude and accept the feelings of pupils." There was also general agreement that the mandate of the Task Force was to illustrate the specific meaning of "warmth" as it relates to teacher behavior in disadvantaged areas. For example, all teachers owe their pupils a warm greeting, a ready smile, sympathy and understanding in times of special stress, and sincere recognition and approval of a job well done. For teachers in inner-city schools, however, such behaviors have value beyond the teaching of social amenities. They may be critically important means of furthering feelings of self-worth and identity.

Members of the Task Force thought it was essential to identify, at least briefly, some of the areas of knowledge with which teachers in disadvantaged areas of large cities should be familiar. To be able to practice the multitude of desired behaviors expected of the teacher in an inner-city school certain basic knowledge is required. This knowledge can be obviously classified under such traditionally discrete subject areas as psychology, sociology, anthropology, economics, history and political science. The trend toward emphasizing an interdisciplinary approach, however, is growing and appears to be more desirable.

In general, some of the basic understandings or knowledge that would require an interdisciplinary approach can be classified under the following headings:

(1) Mastery of content.

(2) Human growth and development. Understanding by the teacher of the child's needs, desires, frustrations.

(3) Comparative cultural patterns, including urban social stratification, structure and process of urban life, characteristics of subcultures involved and contributions of subcultural groups.

(4) The dynamics of the contemporary civil rights movement.

(5) The teaching-learning process: principles, sociological factors and evaluational processes (limitations).

(6) Economic conditions: job opportunities, poverty, housing patterns.

(7) Community conditions: dynamics of the community and operation of community agencies.

(8) Human relations: inter-personal, inter-group, and understanding of family structure.

(9) Competence in a foreign language when appropriate.

Although the Task Force was charged with describing desired teacher behaviors per se, there was agreement that certain character traits and aspects of teacher personality influence all aspects of the teacher's relationships with children. The pervasive and influential nature of these teacher traits would seem to justify their mention here. The presence of these characteristics may often be discernible when a person is admitted into a teacher preparation program. Subsequent education should endeavor to strengthen these characteristics and correct any deficiencies. If deficiencies cannot be corrected, compensatory strengths may, hopefully, be developed.

Emotional stability or maturity is one of these essential traits. Without this, the teaching-learning situation is too often structured to the needs of the teacher, rather than to those of the child.

The inner-city teacher needs a sincere commitment to teaching and to working with disadvantaged children.

He must be free from bias or prejudice. He must be prepared to accept each child as a human being irrespective of appearance or behavior and to take pride in helping each child develop.

Adaptability or flexibility (readiness for innovation or experimentation) in the face of new unexpected situations is also an essential teacher characteristic. The rigid person will experience great difficulty in dealing with the many and varied classroom situations that he will need to face each day.

The teacher must be fair in dealing with children, in terms of their values as well as his own. He must be patient under trying conditions and have a sense of humor.

The following taxonomy describing and categorizing desired teacher behaviors is imperfect, arbitrarily constructed, and anything but scientific. It represents, however, an inductive attempt to categorize desired teacher behaviors in disadvantaged urban areas according to pupil needs. Such needs are present in the case of all pupils but are especially critical in the case of the culturally disadvantaged. It is important to repeat that these groupings are not mutually exclusive. Many items are listed in more than one category.

Other items listed in only one of the major categories could assuredly be included in other categories.

The illustrative teacher behaviors listed subsequently are categorized on the basis of the principal needs of pupils. The teacher behaviors illustrated are those required to meet these pupil needs.

SOME PRINCIPAL EDUCATIONAL NEEDS OF CHILDREN IN DISADVANTAGED AREAS AND ILLUSTRATIVE TEACHER BEHAVIORS REQUIRED TO MEET THESE NEEDS

I. A CHILD NEEDS A SENSE OF HIS OWN WORTH AND DIGNITY

Teachers should behave in such a way as to:

A. Encourage children to speak about their daily lives, their desires, and their problems.

1. Use role playing in studying workers in the community. Let children assume the roles of community workers.
2. Encourage oral expression of frustrations and insights.
3. Encourage the child to speak out about his life and experiences. Comments should be made in such a manner that the child feels that he, too, can offer something to the general knowledge of the classroom.
4. Make frequent use of games, such as Show and Tell or similar techniques, to encourage self-expression in class. For example, have children describe their dreams to the class. In using these techniques encourage children to express themselves fully.
5. Utilize special knowledge in the area of language structure and development in working with disadvantaged pupils.

B. Demand, facilitate and commend pupil achievement in and out of school.

1. Provide arrangements whereby children can be useful to others and find their usefulness rewarded by appropriate recognition.
2. Identify graduates of the school who have been successful in their chosen fields. Select these graduates by using committees of pupils, teachers, and parents. At an assembly, present these people to the student body.
3. Use bulletin boards to display pupil's independent activities and achievements in varied activities in and out of school.
4. Praise a child's strong points, whether they are in athletics, shop, in academic fields, or in activities away from school.
5. Recognize that the disadvantaged youngster's capacity often exceeds his performance on standardized tests. Insist that he set goals in the light of his capacity.

C. Demonstrate a regard for, and an interest in pupils as individuals.

1. Treat illness in a family as affecting the "school-room family."

With good judgment take some action such as sending a card from the class to a child who is ill or a note from the teacher to a parent who is ill. Maintain close contact with the child involved and demonstrate personal concern for the welfare of the child and his family.

2. Never reprimand pupils in front of their peers on an individual basis. The act should be criticized, not the individual. (It is the behavior that is unacceptable, not the child.)

3. Select an outstanding boy and girl in a class and feature a picture of the student in the foyer of the school. Display a photograph of the student with an appropriate write-up by a fellow student. This should be done in a manner that avoids the harmful connotation of "teacher's pet."

4. Treat each child with courtesy; say please, thank you, etc. Smile as each child enters or leaves the room.

5. Notice a new belonging, however, minor, and comment on it.

6. Learn each child's name and its correct pronunciation early in the semester and use it whenever referring to the child.

7. Keep a record on the chalkboard each month listing the names of the children who have birthdays that month. On the child's birthday,
   --the teacher mails a birthday card;
   --the child sits in the special "birthday chair";
   --the child chooses games during the game period;
   --the child acts as the messenger for the day; and
   --the child carries the attendance slip.

8. Reserve a special space on the bulletin board for each child. Permit the child to select what he feels is his best work each week and put it on the board himself.

9. Give the children opportunities to help decide rules and regulations in the classroom.

10. Visit homes of the students and consult with the parents and/or guardians. Do so before the child gets into trouble.

11. Put mirrors in prominent places to encourage grooming.

D. Recognize differences and weaknesses but stress in instruction the strengths and likenesses of the cultural backgrounds from which the children come.

   1. Provide materials with which the child can identify himself, e.g. the new "Detroit readers."[1]

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[1] The City Schools Reading Program, written by the Writers' Committee of the Great Cities School Improvement Program of the Detroit Public Schools, Dr. Gertrude Whipple, Chairman, and published by Follett Publishing Company, Chicago.

   2. Organize discussions of the contributions of the Negro and other minority groups in American History.

E. Manifest commitment to teaching children in urban disadvantaged areas.

   1. The teacher should have knowledge of and make suitable use of an appropriate foreign language.

   2. Live in the disadvantaged area where he teaches.

F. Develop and use, whenever possible, feedback techniques for securing information from children.

   1. Exercise care in testing so that a degree of success can be achieved.

   2. Utilize pupil-helpers who are granted the privilege of entering the building several minutes early to assist the teacher. Talk to these pupils--and listen to them.

   3. Have lunch occasionally with pupil-helpers after obtaining permission from their parents for them to remain at school.

   4. Show interest in what children have to say. A teacher also learns from the student.

   5. Use procedures that enable pupils to verbalize their daily experiences as a part of regular classroom activities.

   6. Examine pupil records. Become aware of positive and negative items in the records and that may help to explain behavior (broken home, ill health, etc.)

G. Set tasks and goals and provide for goal-setting and task achievement and task failure.

   1. Assign specific duties; e.g., have boys carry textbooks from one to another, or appoint committees and group leaders.

   2. Capitalize on independence and leadership potential of youngsters, many of whom are accustomed to being on their own; e.g., let them plan travel route of class trip to a museum or zoo or bring in materials for a classroom project.

H. Make positive use of task failure.

   1. Select student who had problems with petty theft to carry valuables during fire drills, lunch periods, and other occasions when the class is left alone.

   2. Help students learn to cooperate in discussion and analysis of reasons for failure.

I. Examine oneself and relate more productively to the pupils' culture.

   1. Exhibit no superficial tolerance or condescension.

   2. Identify and counsel rapid learners as well as potential dropouts.

II. A CHILD NEEDS TO RECOGNIZE AND MODIFY VALUES AND BEHAVIORS THAT CONFLICT WITH SCHOOL CULTURE

Teachers should behave in such a way as to:

A. Structure the classroom activities to assist pupils in understanding the concept and importance of order and structure. Help pupils move toward more self-directed experiences in planning.

   1. Use seating arrangements to facilitate ready recognition of pupils and completion of group-work assignments.

   2. Set climate in classroom permitting children dissent in proper manner.

   3. For the first month or two have a highly structured class presentation, e.g. teacher dominated. Then give up leadership slowly to the class. If they can handle one thing, go on to the next. If they have trouble, help them develop what is lacking.

   4. Create a tension-free, well-organized, and disciplined classroom atmosphere. Youngsters are often highly emotional, insecure, and need the quiet security of this kind of an atmosphere. In the inner-city it often takes a child almost a period to become quieted down and ready for work.

   5. Be personally and purposefully organized in preplanning routine; then establish activities that allow the students the opportunity to work independently of direct teacher control. The child cannot learn self-discipline if he is not given an opportunity to practice self-discipline. This self-discipline is best brought about in activities in which students are interested and are able to comprehend. Do not underestimate the ability of students to take charge of a situation or project.

   6. Demand more of the students than they are giving in their work behavior. This can be easily adjusted to the individual child.

B. Involve pupils in preplanning classroom activities and help them analyze the advantages of preplanning.

   1. Print and make use of student-created materials.

C. Increase the opportunity for purposeful movement in the classroom.

1. Change the pace of classroom instruction so that the students are not forced to sit too long, read too long, or engage in any one activity too long. Sense when to switch to another activity and also to know what form of activity is best suited for the moment.

2. Give students a chance to move about freely whenever possible in the classroom; also give them many opportunities to speak orally to the teacher and to each other.

D. Manifest emotional stability and an attitude of positiveness toward life. Be optimistic, cheerful, and outgoing.

1. Help individuals with personal as well as scholastic problems.

2. Accept children but not their unacceptable behavior. Act promptly to correct such behavior.

3. Insist that children keep voice at a pleasant pitch in keeping with that of the teacher.

4. Demonstrate willingness to accept responsibility and exercise authority. Pupils must sense that the teacher has fiber and strength, even if it is the quiet kind that is reflected in merely a disapproving gaze.

5. Be available and approachable. Exert positive influence by positive individual interaction with students.

6. Recognize that "noise and rumpus" may be necessary in the interaction of children and, if purposeful, are not necessarily undesirable.

7. Be alert to the individual child's appearance and action. This helps to spot "trouble." Easing off on some days may produce a warmth and climate in which the child can more easily return to normalcy.

8. Follow through on stated intentions--the world of the disadvantaged child is marked by broken promises and unfulfilled dreams.

E. Develop and use of a variety of feedback techniques for securing information about children's values and beliefs.

1. Read and discuss comic strips from the newspapers with small groups at bell time, conference time, or whenever there are spare moments.

2. Discuss current events in relation to values and value conflicts.

F. Examine self and relate self more productively to pupils' culture.

1. Develop personal home contacts.

2. Understand that pupils are "round-the-clock" citizens and that they are in school only a portion of the day. Constantly bear in mi[illegible] importance of environmental milieu.

3. Be cautious in familial references. Many pupils are sensitive about the absence of one or both parents.

4. Learn the family status of each child so that you will avoid embarrassing any of the children in class discussions or in giving them tasks they will be unable to perform. For example, if the assignment is to copy and present a "Mother's Day" poem, allow for some other alternative for the child who has no mother.

5. Be aware of living patterns in the child's home. Avoid embarrassing criticism of elements which to the child are normal everyday happenings. For example, the nutritious breakfast shown in the health manual is not often available to the inner-city child. The teacher must be careful in teaching about a good breakfast not to point an unnecessarily accusing finger at the mother who has failed to provide sound nutrition.

6. Stress medical and dental care, even to the point of giving each child a new toothbrush for Christmas.

7. Be "one with students" while always on own level. Students respect teachers who can be friendly and kind and still be a teacher. Sometimes, in trying to become "one with their charges," teachers succeed rather in becoming "one of them." Naturally, the youngsters treat the teacher as one of themselves, and trouble follows.

G. Help pupils understand and adjust to cultural values held in the broader society, such as punctuality, service, cleanliness, grades in school, test-performance.

1. To serve as much needed models, teachers should have good personal habits, have a well organized routine, and be personally organized.

2. Encourage development of school service clubs--responsibilities of children and rewards of serving others emphasized.

3. Seek out and design experiences which will illustrate the value of concepts such as justice and fairness.

4. Reprimand students only on a private, one-to-one basis. Privately emphasize that the student acted contrary to the general classroom

or school regulations.

5. Be impartial in classroom disputes, but make clear the values on which judgments or decisions are made.

6. Insist on "good restaurant manners" when eating lunch rather than absolute quiet.

H. Help pupils comprehend short and long-range goals of instruction; give students a perspective of the work and its value to them.

1. Set the tone of the class at the beginning of each term. Explain rules and requirements and give a brief overview of what the students can expect and what the teacher expects from them. Keep rules and regulations of the classroom simple and reasonable.

2. Make greater use of tangible rewards. Pupils are much more oriented to the present than to the future.

3. Provide appropriate opportunities for increasing pupil involvement in planning their work and their use of time.

III. A CHILD NEEDS THE SCHOOL TO CAPITALIZE ON AND BROADEN HIS EXPERIENTIAL BACKGROUND

Teachers should behave in such a way as to:

A. Provide a wide range of experiences for pupils with ample opportunities for consolidation around significant experiences.

1. Read to the class.

2. Enrich experience with many field trips.

3. Teach pupils to plan and budget in connection with field trips.

4. Assist youngsters in getting camp experiences.

5. Encourage students to bring in many items from their own homes that lend themselves to classroom discussions and experiences.

6. Utilize student-prepared materials.

B. Involve parents in the educational development of their children through repeated and personal efforts to maintain contacts with them.

1. Encourage the parents to come in as passive observers as one means of developing understanding.

2. Encourage classes for adults during school hours. (In this way the children are taken care of.) Emphasize areas of home management.

3. Have parents help more at school; e.g., help in putting up bulletin boards, collect milk money, sorting papers, etc.

4. Involve mothers in button, thread, and scrap material drives and in the distribution of clothing that comes to school for needy children.

5. Support the establishment of nursery classes in disadvantaged areas.

6. Extend and expand the background experience of parents as well as children. If space permits, invite parents to come on field trips. Many parents will never have been to a zoo, museum, or an aquarium. Parents frequently will talk more freely on a field trip away from the formal school conferences.

7. Learn about special competencies of parents and other community adults and use those competencies when such resources are appropriate to classroom activities.

C. Utilize materials for the development of visual and auditory discrimination and relate these materials to the conditions of the pupils' environment.

1. Utilize audio-visual instructional techniques, such as slides, movies, and records as frequently as feasible.

2. Set aside time for students to pursue any of the rich variety of activities and materials that should be available in the classroom. Do not overregulate the child's time in order to insure easier control over the classroom situation. The overly controlled classroom often presents the most problems in discipline because there is no freedom of movement.

3. Explore with children the uses the school makes of material resources that are familiar to them in their neighborhood environment.

D. Recognize differences and weaknesses but stress in instruction the strengths and likenesses of the cultural backgrounds from which the the children come.

1. Do not censure undesirable idioms and speech patterns of children, but rephrase them in appropriate form.

2. Concentrate on needs of students and community.

3. Welcome other organizations, agencies, and community workers as partners in education: social workers, park and recreational personnel, and so forth.

IV. A CHILD NEEDS TO DEVELOP "CLASSROOM" SKILLS

Teachers should behave in such a way as to:

A. Encourage the children to use complete sentences and to speak at greater length than is usual in their milieu.

1. Emphasize communication skills.
2. Have group and panel discussions--idea sharing.
3. Encourage pupils to talk about themselves and their neighborhood.

B. Start with the concrete and familiar--work with the concrete and familiar.

1. Ask each student to introduce himself at the first class meeting. In this way, teachers have an opportunity to find out something about the background of students and also about their oral expression. After this, ask the reading specialist to test the students in reading so that they be helped in this crucial area. Encourage the poorest readers to enroll in remedial reading work.
2. Teach a non-reader by using the subject matter he knows; e.g., the services and institutions in his community. Thereby build his vocabulary.
3. Do not take pre-knowledge or readiness for granted.
4. Use simple materials. Utilize chalkboard.
5. Reflect in the classroom a sincere concern on the part of the teacher to bring as many interesting things and materials to it as possible. Students can look at a classroom and tell much about the personality and interest of the teacher. Materials should be available to the students and set out in such a manner that they are readily available.
6. Use extensively construction and manipulative materials.
7. Before giving a quiz, make up a sheet of sample questions to be done for homework. Have students answer these orally the day before the test. After correcting the test, review the test by reading the questions orally and having the students give the correct answers.

C. Provide activities that give the child frequent opportunities to write.

1. Assign homework regularly and fairly and check the children's work.
2. Be cognizant of environmental conditions. Realize that youngsters frequently will not have any privacy at home and will be unable to complete written homework assignments for reasons beyond their control.
3. Provide after-school study space for youngsters at the school to compensate for difficult study conditions at home.

D. Exhibit verbal and non-verbal behavior with appropriate patterns of emphasis, loudness, and amount of teacher talk.

1. Give the child ample time to reply. Recognize that often the youngster knows an answer but is unable to express himself quickly and fluently.

E. Vary teaching teachniques and classroom procedures in relation to attention span and needs of pupils.

1. Use, if at all appropriate, any "acting out" situation as motivation for a lesson.
2. Treat each child as an individual not as a symbol or as a typical member of the disadvantaged sub-group.
3. Take into account the child's "learning style." (Visual-physical, slow, one-track, inflexible.[2])
4. Recognize that the disadvantaged child often learns in a visual-physical, slow manner and is frequently not flexible in learning style.
5. Concentrate on the way the child works and not on the reasons for not learning.
6. Pace activities quickly to sustain interest and increase the pupil's attention span.
7. Use dramatics in social studies and language arts.
8. Use a variety of the child's sensory avenues to learning.
9. Collect and make available current and old magazines of interest to students. Invite students who finish their assignments or have nothing to do to read a magazine.

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[2] Frank Reissman, "The Strategy of Style," Teachers College Record, March, 1964.

10. Provide regularly such activities as shop and home economics.

11. Work persistently on study skills in connection with subject matter.

12. Emphasize short lessons and short examinations.

13. Strive constantly to improve limited vocabularies through field trips, etc. Disadvantaged children need much practice in learning to listen. They need much work in learning to talk to others, in having others talk to them, in listening when others speak, and in having others listen when they speak.

F. Relate the instructional process to the community through making use of community resources in the instructional program and through teacher participation in the community.

1. Use role playing; e.g., in studying workers in the community, let the children assume the roles of community workers. Stress the importance of service to the community.

2. In teaching situations utilize all kinds of community resources appropriate to the maturity of the child and the subject under study.

    a. Persons - places - things

    b. Government agencies

    c. Historical sites

    d. Museums

    e. Businesses

G. Individualize instruction to take into account the vast differences that exist among pupils within a sub-group.

1. Be willing to take the time necessary to study the children as individuals.

2. Teach the children, in many instances, on a one-to-one basis.

3. Incorporate teacher-pupil planning appropriate to the level of pupil maturity, but remember that pupils must be taught how to plan cooperatively.

4. Use reading materials appropriate to pupil's needs.

5. Take children to the library personally and introduce them to the

librarian.

6. Have a flexible attitude toward curriculum and school organization (team teaching, non-graded school, educational television, etc.) and test the effectiveness of various approaches in your own situation.

7. Treat each child as an individual, not as a symbol or as a typical member of the disadvantaged group. Not all inner-city children are equally disadvantaged. Some may not be disadvantaged.

8. Seek out and use ways of measuring pupil growth other than traditional means of pupil evaluation.

9. Ask each student early in the term to read orally in order to discover those students who are embarrassed to read orally. From this point on, ask for volunteers to read orally. Do some of the reading personally so that the assignments will be covered or to enable the class to get through some of the difficult passages. Ask questions frequently about the meaning of whole passages, phrases, and words. Ask students to give examples from their own experiences. Demonstrations at the chalkboard help these students to develop the skill of looking up word meanings and of applying them to the particular context. Help them to "read between the lines."

H. Provide interaction for the pupils with other teachers and with adults in the community through sequential exchanges.

1. Work cooperatively with other teachers and community groups in developing an all fronts attack on problems of educating children. As the total community determines how the child shall be educated, so the total school influences his education. It is important that there be a mutually supportive atmosphere throughout and that the total school program be planned cooperatively.

2. Share problems and be ready to utilize the help that can be offered by other members of the school staff, such as the counselor, teachers of other subjects, the school nurse, and the librarian. These colleagues often are able to provide valuable information and advice concerning a given pupil.

3. Help adults learn how to interact with and how to play with children.

4. Develop with groups of children and adults in the community, plans for activities that involve social relationships of various kinds. Out of these experiences help children to learn to make the necessary value judgments in forming and continuing desirable relationships in life.

5. Recognize own strengths and weaknesses. Work cooperatively with

other teachers and complement each other's abilities; e.g., team teach with a colleague who has particular strength in remedial reading instruction. Be adaptable in adjusting schedule and school organizational structure to meet the needs of youngsters.

I. Help adults learn how to read to children.

1. Stress oral reading.

2. Stress helping children to listen.

J. Create an environment of order to limit conflicting stimuli.

1. Establish interesting routine to provide sense of security and needed orderliness.

2. Recognize that planning, sequence, and continuity are stabilizing influences that many disadvantaged children need.

3. Have classroom well-ordered and physically ready: desks in order, bulletin boards up, seating chart ready, supplies ready.

4. Require that necessary equipment, such as pencils and notebooks, be brough to class each day.

5. Maintain high standards of educational attainment and manifest no condescension.

K. Help pupils learn by indirect instruction as well as by direct methods.

1. Use game approach whenever possible.

2. Develop with groups of children plans for activities that involve social relationships of various kinds.

3. Maximize reading assignments.

4. Employ repetition frequently when appropriate.

5. Plan projects that permit children to become active in the pursuit of learning.

6. Possess the ability to present every subject as a reading lesson, while not neglecting the subject matter, because reading is one of the greatest problems. Development of new vocabulary, and introduction of reading skills, is a necessity in every area of learning.

V. A CHILD NEEDS TO UNDERSTAND AND ARTICULATE DAY-TO-DAY PROBLEMS

Teachers should behave in such a way as to:

A. Sensitize themselves to different language systems of children in order to gain an understanding of the community's mores.

1. Develop an instructional method to encourage oral expression to gain insights into childrens' strengths, weaknesses and frustrations.

2. Listen more often as children speak.

B. Use ingenuity in developing and using ways of securing information from and about children.

1. Act as much as possible with the full knowledge of the causes of pupil behavior.

2. Discuss with individual children their weekend or after-school activities.

3. Take some of their "valuable" school time to see what students do after school (dancing, singing, etc.)

4. Observe the children in out-of-school situations.

C. Examine themselves and relate themselves more productively to pupils' culture.

1. Teach children to prepare sample meals, especially breakfast.

② Recognize that the students are far more important than the subject matter. Teachers in a lower socio-economic environment must be willing and able to take on personal as well as educational problems of the students.

3. Keep abreast of new literature concerning the disadvantaged.

4. Use the pronoun "we" as often as possible in talking and identifying with the children and parents.

D. Establish a climate in which inter-personal relationships facilitate problem solving.

1. Use any "acting out" situation as motivation for a lesson.

2. Increase time spent listening to a child, encouraging him to speak about his interests and problems, thus, hopefully, making a more accurate evaluation of his problems. Discuss weekend and after-school adventures of students.

3. Utilize a highly dramatic approach to capture interest and offset the tendency of pupils to "tune out" the noisy, confused world in which they live.

4. Utilize class discussion of anonymous questions from a question box.

5. Encourage, whenever possible, discussion in the classroom at the present time. This leads students to bring the current and most meaningful problems to the teacher's attention.

6. Be aware of what is going on in the world today and do not hedge from speaking the truth when the truth demands to be heard. Students are often looking for answers to their problems and teachers often, in the classroom, do students an injustice by trying to conceal the proper answers.

7. Encourage, suggest, urge the parents to "speak up..." to make their wants known to the principals and Board of Education concerning various matters that they speak with the teachers about.

8. Provide ways for a child to "save face" through judicious handling of discipline problems.

VI. A CHILD NEEDS TO IMPROVE HIS PERCEPTIONS OF SCHOOLS AND SCHOOLING

Teachers should behave in such a way as to:

A. Show fairness and consistency in treatment of children.

1. Explain "why" when teachers have to do something that affects the children.

2. Exhibit the most effective aspects of their personality. It is not so much what the teachers say as how it is said. For example, a teacher who was quite successful with disadvantaged children, quieted his cafeteria line by saying, "Children," and the class responding jokingly, but respectfully, "Yes, father!" Perhaps only this teacher could talk this way and get results--and perhaps only to this teacher could the children respond the way they did. They knew he would understand. With another teacher this might have caused chaos.

B. Exhibit emotional stability--an attitude of positiveness toward life; optimism; cheerfulness; friendliness; and an understanding of what makes children the way they are.

1. Establish themselves as the adults who happen to be in authority but who try to communicate genuine interest in the welfare and achievement of all the students. One successful teacher hardly raised his voice above its normal loudness except to dramatize a point in a lesson. He never hesitated to laugh along with the class at something appropriately and genuinely humorous. He tried to create a climate in which those who wanted to work were not prohibited by those who were not working. Last summer a student asked

why this teacher never sat down and he replied that he was too busy to sit down. The teacher was frequently circulating around the room trying to help a student figure out an answer for himself, trying to motivate a student better by talking to him individually. Only during these conferences would the teacher sit down.

2. Tell the students about the teachers and their experiences--up to a point.

3. Show that the teachers are also human beings and that they have a life outside school.

C. Help adults to change their perceptions of the school.

1. Provide a receptive atmosphere to attract and involve the parents in the school program.

2. Visit the home, know the parents, know the child's situation.

3. Invite parents for varied activities that display children's work.

4. Conduct discussion groups with parents.

5. Understand and accept the culture of the children. This acceptance of the children's culture was very evident in one summer tutoring program in a large city. Many of the tutors were not teachers, but the fact that they accepted the children, just as they were, was most conspicious. A tutor's mother was worried about her safety (in a depressed neighborhood) and wanted her to quit, but her student wouldn't hear of it, so she continued to the end. Many of the tutors took their charges to the Art Museum. On the night awards were distributed, the tutors took the group for an ice-cream treat, and some of them presented their charges with a small farewell gift. That these small demonstrations of their acceptance of their charges were successful was evidenced in several instances: On very warm evenings when both tutor and child were "dripping," the tutor suggested that perhaps they might stop early but the child always wanted to finish the story. All of the children wanted to continue with the tutoring program in the fall, and practically all of the tutors were anxious to continue. It has been interesting in a few instances to listen to a tutor tell his charge all about his home and his family in response to the child's usual question: "Have you any children?" A mother responded on Parent's Night, "I never heard Deborah read so well!" About twenty-two out of twenty-nine parents appeared to meet the tutors on Parent's Night. This was very unusual. Children's attendance was excellent.

6. Have respect for all forms of honest labor. Encourage admiration for job well done in any field. Appreciate efficient labor in fields such as domestic service, custodial work, etc.

7. Live in the inner-city themselves.

D. Help pupils relate to the prevailing culture, inculcating values such as: time pressure, cleanliness, grades in school and test-taking.

1. Stimulate pride in environment, attractive classroom displays, etc.
2. Tell them about own family, day, home life, etc.

E. Ability to establish a climate in which inter-personal relationships facilitate problem-solving.

1. Convey to the child your confidence that he can achieve, that he can accomplish. Win his confidence in the teacher and the school.
2. Follow up the placement of a child new to the school through a visit to his room; chat in the hall; invite the child to visit in your room.
3. Continually seek better methods of welcoming pupils new to the school.
4. Let the children and parents know that they are wanted, needed, respected, of great worth and that you expect much from them in leadership, etc.

X. A FEW ILLUSTRATIONS OF PERVASIVE BEHAVIORS

As it wrestled with its taxonomical problems, the task force identified some broad permeating behaviors that were so inclusive and overlapping that they pertained to every category of behavior. Most of these already have been noted in the specific context of one or more of the foregoing categories. They have been drawn together rather arbitrarily here into a separate category "X" in order to emphasize their recurring and pervasive nature.

Teachers should behave in such a way as to:

A. Exhibit flexibility in verbal and non-verbal behavior.

1. Utilize varied and appropriate patterns of emphasis, loudness, and amounts of teacher talk.
2. Manifest foresight to recognize that an inappropriate word, gesture, or action may set off a bad chain reaction.
3. Use resourcefulness in taking a new tack when the situation requires.

4. Display willingness to deviate from expected procedures and practices; e.g., use of comic books if appropriate.

5. Adapt to children's needs.

B. Examine themselves and relate themselves more productively to pupils' culture.

C. Exhibit emotional stability, fairness and consistency in treatment of children.

D. Exhibit ingenuity in developing and using feedback techniques for securing information from children.

E. Help pupils learn by indirect instruction as well as direct and develop an examined rationale for the use of each.

F. Develop an examined rationale for curriculum content.

G. Develop an examined rationale for decision-making.

H. Supplement their own skills and resources by drawing from, contributing to, and cooperating with other groups in supporting such practices as:

A TST (Tomorrow's Scientists and Technicians) project operated jointly by the Urban League and faculty members of the school in one large city.

Homemakers, professional people, and teachers working cooperatively on a Family Life Education project with the following objective--to enrich the economic, cultural, and ethical standards of both parents and students.

The staff of the Department of Recreation and Parks cooperating with the staff of the Management Office of a Housing Development in an annual recognition ceremony for all pupils living in the residential area as they complete junior or senior high school. Recommending children who are disruptive of school routines to the recreation leaders in the neighborhood center. The recreation staff works along with the school staff to try to identify causes of "anti" behavior and also find worthwhile outlets for youthful energies.

Senior high school students working as summer volunteers at a state mental hospital.

Three high schools participating in a cooperative program with a local library in an effort to help students make more effective use of reference services in studying English, social studies and science.

CHAPTER III

REPORT OF TASK FORCE TWO

INTRODUCTION

Task Force Two of the School-University Teacher Education Project was charged with developing a description of the teacher curricular content and experiences most likely to elicit the teacher behaviors described by Task Force One. The Task Force met from October 14-16, 1964. The roster of participants is listed on the following page.

The Planning Committee believed that Task Force Two had a unique opportunity to explore a new pattern of teacher education for disadvantaged urban areas. It was decided that two papers would be prepared and discussed at the outset of the meeting. These papers were to be "visionary" in nature and special teacher education programs which were not bound by current practices or convention were to be developed by the authors.

The papers which were prepared by Dr. Harry Rivlin, Dean of Teacher Education of the City University of New York, and Dr. Martin Haberman of the University of Wisconsin, Milwaukee, were discussed at length and received very favorably. The Task Force members devoted special attention to the provision of clinical experiences for teachers of the disadvantaged. As the Task Force report will indicate, the discussion focused heavily upon the Rivlin and Haberman presentations which provided the essential framework for the deliberations of the Task Force.

SCHOOL-UNIVERSITY TEACHER EDUCATION PROJECT

TASK FORCE TWO ROSTER OF PARTICIPANTS

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NEW WAYS OF PREPARING TEACHERS FOR URBAN SCHOOLS

Harry N. Rivlin, City University of New York

The growing concern with the problems confronting urban schools gives us the opportunity to devise new programs that will prepare teachers to serve in schools in low socio-economic areas. This call for the development of new ways of preparing teachers should not be misinterpreted as another attack on teacher education. Of these we have more than enough. We must not forget that our present teacher-education programs annually provide thousands of new teachers, many of whom remain in teaching and become thoroughly competent. On the other hand, we should not pass up the opportunity we now have of seeing whether there are even better ways of training urban teachers and of drawing upon the experience and the insight of those who have been preparing teachers to find these better ways.

In the hope that a description of a tentative program may stimulate school and college people to think of other patterns and procedures, I am presenting a teacher-education program different in many respects from the typical programs now conducted. It will not be profitable to spend much time debating the virtues and limitations of the specific plan I am presenting, for we can simply ignore what is unwise or unusuable. What we should do instead is examine the program to see whether there is anything that should be used or that can be modified so that it becomes worthwhile and feasible. Better still, we can see which better plans it evokes.

Although the proposed program differs in many respects from those currently in use, five major changes stand out. First, it replaces the distinction between pre-service and in-service teacher education by dividing teacher education into the two phases of pre-tenure education and the continued education of permanent members of the school staff. Second, the undergraduate program is focused on the development of the specific skills that a beginning teacher needs, with the university's fifth-year program and the school system's in-service program being relied upon to help the beginning teacher become a truly competent professional teacher. Third, it assigns to selected school personnel an increased responsibility for working with prospective and beginning teachers. Fourth, it provides that all people rendering a service to the schools be paid, with the rate of remuneration appropriate to the service given and the degree of responsibility assumed. Fifth, it provides for school and college cooperation in establishing teacher education centers in the public schools.

Assumption Underlying a Program of Teacher Education for Urban Schools

The proposed program is based upon several assumptions:

1. No teacher-education program can be effective without the close cooperation of schools and colleges.
2. The elementary or secondary school classroom, not the college, is the place where teachers learn most about how to teach.
3. Teaching is more than a craft to be mastered through an apprenticeship.
4. The prospective teacher's performance in the classroom as an assistant teacher or intern offers a valid basis for determining whether he should be permitted to continue his program in teacher education.
5. Teacher-education programs should take advantage of the insight and skill of experienced teachers.
6. Individual differences in abilities, interests, and background are as important among teachers and prospective teachers as they are among elementary and secondary school students.
7. Motivation for learning and knowledge of progress as an incentive for learning are important in teacher education.
8. Attending classes is only one of many ways of learning, and prospective teachers can learn a great deal from directed reading and independent study and from working with children and schools.
9. Teaching is so complex a skill that careful gradation of learning is

as important in a teacher-education program as in an arithmetic class.

10. The responsibilities entrusted to prospective teachers and beginning teachers should be proportionate to their ability to assume these responsibilities.

11. Members of the college faculty who have a doctorate should carry the responsibility for those aspects of the teacher-education program in which the advanced study leading to the doctorate is most important.

12. Supervisors of student teachers and interns should be specially selected on the basis of their expertness as classroom teachers and their ability to help prospective teachers and beginning teachers rather than on the basis of their graduate degrees and excellence as productive scholars.

13. The education of a new teacher is not completed on commencement day, regardless of whether the degree that is conferred is a bachelor's or a master's degree. The first years of full-time teaching are of such critical importance in influencing the teacher's professional development that they should be included in a program of pre-tenure teacher education.

14. Students who perform useful service in the schools as part of the teacher-education program should be paid for their services, but no student should receive an honorarium solely for being a prospective teacher.

The Education of Prospective Teachers

There should be a two-track system for the preparation of prospective teachers, one for undergraduate students and the other for college graduates.

The goal for these programs should be the relatively modest one of preparing good beginning teachers who will know what to do and how to do it when they start teaching. It is presumptuous to think that a college program will develop accomplished professional teachers who have both an individual philosophy of education and the skill with which to deal with serious learning and behavior problems.

Partly because college students do not have an adequate background of experience with children and with schools to give meaning to the words used in college education classes, they think that these courses are repetitious and do not prepare them adequately for teaching. Why not have the college education courses focus on the problems the students can understand and delay the attempt to develop deeper insights and greater skill until the students have the necessary experience and maturity?

The Program for Undergraduates. In the freshman and sophomore years, prospective teachers should include courses in psychology, sociology, and anthropology as part of their regular college program. If necessary, they should also have intensive courses in composition and in speech because all teachers must be able to write and speak correctly and effectively.

All students who have completed such a two-year college program should be eligible for admission to the teacher-education program. Whether they should be retained in the program later, however, will depend chiefly upon the evaluation of their performance in the schools.

Without changing the total number of credits now granted by the college for education courses, the teacher-education program should be planned in large units of six to eight credits. The teacher-education program would thus be free to adjust the demands made on the students' time without requiring the customary faculty and administrative approval each time one of the activities or part of a course is expended or another is contracted. The extra-class activities in which a prospective teacher engages should be included as part of the student's total program.

The Junior Year. During the first semester, the student should carry a regular program to help him meet the requirements for his degree.

In addition to this program of studies, or as part of it if the college so wishes, the student will serve for three to six hours a week as a community service aide, being assigned to a specific community agency that serves children and youth in a school neighborhood. He will work under the direction of an agency staff member and may participate in such activities as assisting with club leadership, family social service activities, juvenile delinquency prevention projects, etc. There should be a weekly conference conducted by the college either on campus or at the social service agency to help the student profit most from his experience with the agency. In addition, there should be three-way conferences (agency, college, student) to deal with the student's performance and needs. The major purpose of this assignment as community service aide is to give the student some first-hand familiarity with the social conditions under which urban children live.

In the second semester, as part of his program of college studies, the student will enroll in his first education course. Drawing upon the students' earlier study of anthropology, sociology, and psychology, the course should concern itself with urban education: its problems, procedures, and opportunities. This course should help the student understand the school's role in urban life and the part the classroom teacher plays in helping the school to fulfill its role.

While the student should have some insight into the educational problems posed by children from families in low socio-economic groups, he must recognize that not all city children are underprivileged and that city teachers must learn how to teach the bright and the dull, the rich and the poor, the ambitious and the listless.

While enrolled in this course, the college junior should be appointed by the school system as a school aide, being paid by the school at an hourly rate for his services to the school but not for the time spent in observation of school activities. For between six and fifteen hours a week, the student should be assigned to a specific school where, under the principal's direction, he will assist in performing the teachers' clerical chores and spend much time visiting classes and the other activities going on in school. There should be weekly conferences conducted by the college, either on campus or at the schools to which aides are assigned, at which the school aides will have an opportunity to discuss what they are seeing and to receive help in interpreting school practices and problems. In addition, there should be three-way conferences (school, college, student) to deal with the student's performance and needs.

There will be administrative difficulties if all juniors are community service aides in the first semester and school aides in the second semester. For this reason, there may be an advantage in dividing the juniors into two groups, with one group serving as community service aides while the other group serves as school aides. In the second semester, the students will exchange assignments.

The Senior Year. Seniors should devote about 40 per cent of their time to academic courses taken as part of their baccalaureate program outside the education department.

Seniors should be appointed by the school system for the full year as assistant teachers, being paid at the rate of 25 per cent of the annual salary of a beginning teacher. Assigned to a specially selected classroom teacher for three hours a day, they should assist the teacher by performing such clerical and instructional tasks as are assigned them and, as the year progresses, should assume increasing responsibility for teaching individual pupils, small groups, and the entire class. The assistant teacher will be primarily responsible to and be supervised by the regular classroom teacher. Directing and supervising an assistant teacher makes demands upon the teacher's time and energy and should be compensated for by the college out of funds that would otherwise be used to pay college supervisors of student teaching.

Concurrent with service as an assistant teacher, the student should enroll in a college course (equivalent approximately to four credits each semester) dealing with the problems of learning and teaching. Replacing the separate courses in educational psychology and methods of teaching, this course should deal with the applications of developmental psychology and the psychology of learning to methods of teaching. Because few college professors at present are competent to deal with both psychology and methods of teaching, these courses may have to be taught by a team of two college professors. To keep instructional costs down, the team may have to be responsible for teaching an oversized class that can be divided into smaller groups as needed.

At first glance it appears to be impossible to compress a one- or two-semester course in educational psychology and a two- or three-semester course in curriculum and methods into a two-semester course. For this compression to be achieved satisfactorily, greater reliance than is now customary will have to be placed upon guided reading and independent study. College seniors should be able to read much that appears in the educational literature without having the material discussed in detail in their college classes. Their concurrent service as assistant teachers should not only provide an incentive for such reading but should also furnish the background to give it meaning and the opportunity to try out what they have gained from their reading and college instruction.

The objection may well be raised that the senior year is impossibly rigorous. Seniors are hardier than we realize, and nothing is impossibly rigorous if it makes sense to them. We must not forget, moreover, that these students are getting one-fourth of a teacher's salary this year and that many college seniors have part-time jobs. If students must earn money to help defray the cost of a college education, why not have them fill a job that has educational as well as economic value? Serving as an assistant teacher certainly contributes more to the student's professional career than does waiting on tables or being a part-time salesperson.

Besides, teaching is difficult and rigorous. If the teacher-education program is so demanding, intellectually and physically, that the uncommitted and the fainthearted drop out, it may be better to have them drop out while they are still students and can change their college programs and vocational aspirations than to let them coast along until they are certified teachers and then resign, leaving some children without a teacher.

During the summer following the fourth year, the student should attend a summer session in order to complete the academic requirements for the baccalaureate degree, unless he has already met these requirements by prior summer-session attendance or in other ways. Most students will prefer to attend the summer session at the end of the sophomore or junior year so that they may be graduated with their class at the end of the fourth year.

The Fifth-Year Program. The fifth-year students should be appointed as interns for one semester. They will be assigned full time to a school, under the direction of the supervising teacher, with the understanding that they will receive 50 per cent of the salary of a regular teacher but will carry only about half of the program of a full-time teacher. They will also be enrolled in a college course restricted to interns and to former interns in their first term of full-time teaching. Most of the time in this course in classroom, problems will be given to questions on methods of teaching, class management and discipline.

This course should be taught by a person who is in close touch with reality in the schools and who can deal constructively with the problems posed by the interns. Thus, the instructor may come from the college faculty or from among school teachers and administrators. It is desirable that there be regular conferences at monthly intervals for the instructors in this course to provide an opportunity for them to discuss among themselves the problems and procedures explored in class. These conferences are especially important when school personnel are employed because a teacher or principal who comes to college teaching without having had an opportunity to see other teachers and principals in action often tends to teach a college course as though its theme were "How I deal with these problems at the Golemus School."

The intern's competence as a classroom teacher should be evaluated at the end of this semester. If he seems ready to serve as a regular teacher, he should be appointed to such a position, but at the second step of the salary schedule. If he is not yet ready for a regular appointment, he should be reappointed as an intern for another term. At the end of the second term of internship, the school system should reevaluate the intern's teaching ability to see whether he should be appointed as a teacher. If he is, he will be placed on the second step of the salary schedule. The school system should require all former interns, during the first term of full-time teaching, to attend the classroom problems course conducted for interns.

Appointing former interns at the second step of the salary schedule recognizes the experience they have gained as school aides, assistant teachers, and interns, and corrects any inequity that might arise if other teachers who completed only a four-year program started full-time teaching earlier.

The Program for College Graduates. One of the major weaknesses in our programs for recruiting teachers is that most of the emphasis is focused on undergraduates rather than on older adults. When adults who have been out of college for years are recruited, moreover, they are often either admitted to regular undergraduate programs that may be inappropriate and too prolonged for them or they are rushed into classroom teaching before they are ready. A number of institutions are conducting Master of Arts in Teaching programs for college graduates, but these programs are ordinarily not focused on the needs of urban schools.

We should continue our undergraduate teacher-education programs, but we should not rely on undergraduates. Far too many young people still look upon teaching as a temporary vocation with which they fill in the years before marriage and childbirth or as a "security occupation" on which they will fall back if they do not get a "more glamorous" job.

While we may safely allow all college juniors to enter the teacher-education program and rely upon their work as school aides and assistant teachers to provide the basis for determining whether they should continue their preparation, adults who return to college will have to be examined in various ways to see whether they are ready to be admitted to the program and what special help they need in order to become teachers. Because adults are so varied in background, experience, and abilities, they will need specially tailored programs. For example, some prospective mathematics teachers may have been engaged in occupations that kept their subject matter up-to-date, while others have not used any of the higher mathematics they studied at college and are unfamiliar with recent developments in mathematics. Some return to college with enthusiasm and insight resulting from such an experience as having served in the Peace Corps, but there are also adults who see teaching as a means of escaping from a job they dislike rather than as a profession they wish to enter. We need adults who are recruits for a profession rather than refugees from an unpleasant job or home situation. A preliminary screening is, therefore, essential.

All college graduates entering the teacher-program should be screened by the school system to see whether they are acceptable as assistant teachers and by the college to see whether they have necessary academic background of subject matter. There should be no elaborate testing program to predict their success as prospective teachers since their performance as assistant teachers will provide a better basis for deciding who should be retained in the program for further training.

When there are deficiencies in the subject-matter background for teaching, these should be corrected by appropriate course work and independent study before these men and women are appointed as assistant teachers. Whether they should be required to take a course dealing with the problems, practices, and opportunities of urban education before enrolling in that first year or should be permitted to take it concurrently with their service as assistant teachers should be left to the discretion of those who are administering the program.

The Two-Year Program for College Graduates. During the first year the students will serve as assistant teachers, earning 25 per cent of the salary of a beginning teacher, and will enroll in the education course taken by all the other assistant teachers. In some instances it may be both desirable and necessary for these students to enroll in a subject-matter course concurrently with their service as assistant teachers.

In their second year these students will serve as interns during the first semester, paid at the rate of 50 per cent of the salary of a beginning teacher, and will enroll in the education courses taken by the other interns. If their performance as interns is satisfactory, they will be appointed as regular teachers on the second step of the salary scale and continue attending the course taken by interns. If the intern is not ready for the full responsibility of teaching, he should be reappointed as an intern for another term. As are all other interns, these men and women will be required to attend the classroom problems course conducted for interns both while serving as an intern and in their first term of regular teaching.

That these graduate students will start earning something immediately upon entering the program is important. Many of these students will probably be mothers. The money they receive will enable them to employ additional household help so that they may use their own time preparing to become effective teachers. That their remuneration will be much less than that of a regularly appointed teacher underscores the fact that they are not yet fully qualified to teach.

These students should receive no graduate credit for participation in the program because the work they are doing is not advanced work that merits graduate credit. However, if any courses they take happen to carry graduate credit, it would be manifestly unfair not to permit the student to apply that course later to meeting the requirements for a higher degree. Similarly, if a school system provides higher salaries for teachers who have taken courses in addition to the number required for a baccalaureate degree, these students should not be denied such an increment.

Nevertheless, it should be clear that the program is essentially one that is pointed toward the professional needs of a beginning teacher rather than toward the academic requirements for an advanced degree. That the graduate student starts earning some money in his first year and also starts his full-time teaching on the second rather than the first step of the salary schedule should take some of the edge off his disappointment at not getting graduate credit for the non-graduate activities in which he is engaged.

Incidentally, the prospect of starting full-time teaching at the second salary step will make the program much more attractive to college graduates who now hold other jobs that they wish to leave in order to teach.

Selection and Retention

The program under discussion envisages procedures for selection and retention of prospective teachers different from those currently employed.

Self-Selection. Because this program takes the prospective teacher into the classroom almost from the beginning, it gives him an excellent basis in first-hand experience for deciding whether teaching is what he wants to do. When self-selection is based on adequate experience and knowledge, it may be the most valid of all procedures for deciding who should be retained in the teacher-education program. School aides, assistant teachers, and interns should get all the assistance and support the school and college can offer to help them succeed, but the student should be free to drop out at the end of any semester without penalty.

Selection by the Schools. Teachers, unlike practitioners of other professions, are seldom self-employed. The schools that employ teachers ultimately decide who will be a teacher. Schools should, therefore, play a more important role than they now do in deciding who should prepare to teach. Even if the colleges are wiser than the schools in predicting which students will become excellent teachers in later years, an unemployed and unemployable teacher will never have the chance to corroborate his college's judgment.

Since the teacher aides, assistant teachers, and interns are paid as members of a school faculty and are teaching the children for whose education the school is responsible, it is clearly the school's function to decide who should be appointed or reappointed. Any student who does not live up to the standards of performance set by the school to which he has been appointed will have to drop out of the program, unless he can persuade another school to appoint him. The prospective teacher's performance in the classroom becomes, as it should be, a major basis for determining whether he should go up to the next rung on his professional ladder.

There are schools that set standards for appointment that are too low or too irrelevant to suit the college. In such instances the college will have to work with the school's administrators in an attempt to modify their attitudes and procedures--or find other schools with which to cooperate in the preparation of prospective teachers.

Selection by the College. The college's role in teacher selection should be exercised in those areas in which the college is most competent. By its admission policies and by the nature of its program during the first two years, the college selects those who may enter the undergraduate program; and by its evaluation of college graduates applying for admission to the teacher-preparation program, it decides which college graduates may enroll. As in all other courses, only those students who perform satisfactorily may go on to the more advanced courses. The college role is focused, therefore, on seeing that prospective teachers have the necessary intellectual ability and academic background for teaching.

Since the schools will have the ultimate responsibility for deciding whether a specific student should be appointed as a school aide, assistant teacher, or intern, the colleges will have only an advisory function, but an important one, with respect to these assignments. Every college with a good student personnel program has so much data about its students that the school system should attach considerable weight to the college's evaluation of the individual student and to its recommendations concerning his qualifications for appointment. By contrast, the colleges will probably be the ones to select community service aides since the various agencies involved will probably not be able to invest the time involved in evaluating candidates for a temporary part-time assignment.

The college should assume the responsibility for helping and guiding the students who fail to make the grade as school aides, community service aides, assistant teachers, and interns.

Teacher-Education Centers

Specific public elementary and secondary schools should be designated as teacher-education centers for both pre-service and in-service education. It is unnecessary to set any arbitrary limit upon the number of teacher-education centers to be established, for the number will depend upon the need and the resources. These centers can serve as bases for pre-tenure education as well as for the continued education of members of the permanent faculty.

These centers should be regular elementary and secondary schools, preferably located in underprivileged areas, not campus laboratory schools. Designating schools in underprivileged areas as teacher-education centers has the additional value of being a dramatic way of demonstrating to the community that these are not "ghetto schools."

These centers should be staffed by administrators and teachers in the school system who have been jointly selected by the school and the college for assignment there because of demonstrated interest in and ability for working with prospective teachers and beginning teachers. Unless the principal and the teacher have such interest and ability, the school will not be a center for teacher education regardless of how impressive its official title may be.

Using these schools as centers for assistant teaching and internships will reduce much of the time wasted by college supervisors in traveling about in order to visit their students. That the school staff will be specially selected should raise their morale, provide a corps of capable teachers whose competence should be used to help future teachers, and provide professional recognition of teacher competence without compelling classroom teachers to leave the school classroom for administrative posts or college teaching as the only avenues of promotion. Why not retain competent teachers and offer promotional opportunities right within their own classroom?

It is worth considering the proposal that those who have served as assistant teachers and interns in a teacher-education center be appointed there as regular teachers for their probationary period, if there are any vacancies in that school. Once they gain tenure, they should be assigned elsewhere in order to make room for other probationers.

There should be no automatic salary increase with assignment to the center, but staff members who teach college courses should earn instructional pay from the college in addition to their school salaries, and those who supervise assistant teachers and interns should be paid an additional sum as explained below.

When selecting members of the school system to teach college courses, the colleges cooperating in the program should not be limited to the staffs of the teacher-education centers but should utilize talent wherever it is found. It may be expected, nevertheless, that the likelihood of being invited to teach at the college or to be supervisors of interns and assistant teachers will be greater for teachers who are assigned to a teacher-education center both because they have already been selected in terms of their competence and because their association with college personnel working in the centers is likely to bring the faculty of the teacher-education center to the attention of colleges looking for additional instructors.

The importance of the assistance rendered by the classroom teachers to the assistant teacher or intern assigned to his classes should be recognized by a new title, a procedure for selecting these teachers, and appropriate remuneration. Thus, they may be called supervising teachers, adjunct college instructors, master teachers, or some such title. This is too important an assignment to be passed around each year from teacher to teacher, as though it were an unwelcome burden that had to be shared equally by all. These teachers should be selected jointly by the school system and the college on the basis of their competence as classroom teachers and their ability to help assistant teachers and interns.

Since they serve in the dual capacity of being members of both a school staff and a college faculty, the supervising teachers should be paid by both the school and the college. As members of the school staff, they should receive the same salary as all other teachers with similar qualifications and experience. As members of the college faculty they should receive a supplementary salary from the college for supervising students who are serving as assistant teachers and interns and should be required to participate in such conferences, seminars, and other activities as the college requests.

The supplementary college stipend should be computed as being a major share of the present per capita cost of supervising student teachers and interns at the institution. The remaining funds currently allocated to pay for supervising student teaching should be retained by the college in order to enable it to supervise the work of the supervising teachers and to organize such seminars and conferences as may be necessary in order to guide these teachers as they work with prospective teachers.

How much of the supervising teacher's time should be spent teaching and how much of it should be devoted to working with assistant teachers and interns may well vary from situation to situation and should be decided by the school and the college. Clearly, we cannot expect any teacher to carry a full teaching program, supervise an assistant teacher or intern, and teach a college course.

The teacher-education centers should be used as means of familiarizing faculty members, both those in the education department and those in departments other than education, with life in elementary and secondary schools and with the needs of their students who are going into teaching. The remoteness that college professors feel toward school teachers and teaching may be rooted in ignorance rather than in snobbishness or hostility. Many academicians genuinely believe that anyone who knows his subject matter well can walk into any elementary or secondary school class and start teaching. Our colleagues are being perfectly sincere when they think that having their students take additional advanced and specialized courses in their discipline will give the new teacher all the subject-matter material he needs.

Advantage should be taken of every opportunity to get members of the other departments as well as members of the education department into the teacher-education centers. They should come not as tourists visiting a strange land to see how the natives live but as colleagues who come to assist in an important task. Thus, they may be assigned, when appropriate, to a teaching responsibility at the school or to working with the school faculty on a major school assignment, for example, the modification of the school's mathematics program. As members of a community of scholars, college professors assuredly have a stake in the elementary and secondary schools in which future members of the college community are now enrolled. What can our colleges do to help? How can they work with the school's regular faculty and novitiates? Which college courses are most useful to teachers? If this participation is recognized by inclusion on college instructional programs and as a factor in determining college promotions, getting such participation is obviously eased. Once a member of a subject-matter department or of the education department really understands what his students face in the schools, he is in a better position to help his students get the preparation they need for successful teaching.

Both the school system and the college will benefit if the faculty of the teacher-education center are considered to be part of the college's teacher-education faculty. These teachers should have the opportunity to broaden their professional background by visiting other schools and by participating in some o of the professional meetings and other activities of a college faculty. Some teachers at the teacher-education center may be given a leave of absence by the school system for a semester or a year so that they may accept a full-time college teaching assignment.

Continuing Education for New Teachers

However well prepared a teacher may be, his first years of service as a full-time teacher are probably the most critical years in his professional career. To make these years most fruitful requires the cooperation of school and college, for each has a distinctive contribution to make to in-service teacher education, especially for new teachers.

Because the preliminary professional education has been focused so sharply on the needs of the beginning teacher, there is a risk that it will be too provincial and too narrow. Now that the student has been prepared to be a good beginning teacher, we must make certain that he does not remain merely a good beginning teacher. This is the time to lift his sights so that he may become an educator. This is the time to question the "Why?" of education as well as the "What?" and the "How?" on which he concentrated in his pre-service years. This is the time to help him see that there are other ways of teaching, other ways of building a curriculum, and other ways to educating people. Now he is ready for advanced study as he learns to diagnose and to deal with learning and behavior problems.

We should improve the articulation of the school's in-service education program and the university's graduate program. In all too many instances, the in-service courses tend to be extremely narrow in scope, concerned largely with helping the teacher deal with the problem he faces in his present school situation. Only rarely do they try to stretch the teacher's intellect or to enlarge his horizon.

On the other hand, the academic programs leading to the master's degree sometimes pay too little attention to the teacher's immediate professional needs. Thus, if a teacher's background in a specific subject area is weak, he may find that he is ineligible for graduate courses in that area, graduate courses that are often too advanced and too specialized from the teacher's point of view, while the more general courses he needs and wants are not part of a master's degree program.

Because regulations that are applied literally can almost always be circumvented, school systems that offer salary increments to encourage their staff to become better teachers by pursuing studies leading to a higher degree find that some teachers use their first year of graduate studies to become eligible for positions that get them out of the classroom, for example, into a guidance office or an administrative assignment. Though the school needs such specialists as well as teachers, preparation for these assignments should not be confused with improved preparation for teaching.

Teaching today is so complex and important that it demands advanced study. The master's degree program should, therefore, be designed to help a young, inexperienced teacher become a professional. This professional orientation should be recognized by the program's leading to the degree of Master of Science in Education.

In view of the differences among teachers, the master's degree program should be flexible enough to be adjusted to individual teachers. Thus, rather than demand x credits of this and y credits of that, the program should lead to the master's degree if the student has completed thirty credits of post-baccalaureate study as outlined in an individual program approved by the university with, for example, between ten and twenty credits taken in teacher-education courses and between ten and twenty credits in courses outside the education department. All teachers will thus have some opportunity to enrich their subject-matter mastery.

Included within the teacher-education offerings should be one course dealing with the problems faced by classroom teachers, but this course should be on a higher level of conceptualization than was possible in the course taken by interns. Some courses should broaden the teacher's point of view by providing opportunities to study educational philosophy, the history of education, comparative education, etc. Other courses should deepen his insight into the educational process by dealing with such areas as the psychology of learning, problems of emotional adjustment, diagnosis of learning difficulties, work with exceptional children, and new curricular procedures. Still other courses can aim at improving the teacher's skill in the classroom by studying, for example, group process, ways of teaching the non-reader, and educating the talented child.

Whether in-service courses offered by the school system or specifically requested by it will receive graduate credit should be determined by their level and scope, rather than by their sponsorship. Thus, while the development of a new junior-high-school-science curriculum may be an intensely stimulating and useful professional activity, it is not a university graduate course unless it involves a study of basic curriculum design and an examination of trends and practices across the nation and, sometimes, in other countries as well.

To be considered for graduate credit by the university, the course must go beyond the immediate situation, however critical that situation is, and rise above the how-to-do-it-better level, regardless of how great the need for increasing teacher competence. If the course does meet these criteria, if the instructor is competent to deal with the broader problems, and if the level of student performance is of graduate course caliber, it should be accepted as part of the master's degree program at the university even though its instructor has no doctorate and is not a full-time member of the university faculty.

Similarly, the subject-matter courses should also be selected with a view to broadening and deepening the new teacher's background for teaching. There should be an opportunity for teachers to pursue advanced study in areas in which they have the background for graduate study. Provision should also be made, however, for the teacher to take less specialized courses in areas in which his background has serious gaps. There are teachers in our schools who have had no recent college courses in geography, mathematics, English literature, or science, for example, and who are ineligible to enroll in advanced courses. If these teachers may not include more general courses in their first year of graduate professional studies, we create the untenable condition in which the very teachers who need most to study in an academic area are debarred from appropriate courses and continue to teach without understanding fully what they teach.

Graduate study is demanding; teaching is demanding; and it is impossible for a new teacher to engage successfully in both at the same time unless there are limits set upon how much of each he should be doing. For this reason, full-time teachers should not be permitted to enroll in more than one course in any semester. Inasmuch as so much more is gained from full-time than from part-time study, either at least a semester or two summer sessions should be spent as full-time resident students at the university.

It is only natural that we should look critically at any new program that differs in so many ways from established practice. There are undoubtedly many of us who share the point of view of the fellow who did not object to progress; what he did not like were the changes that went with progress. On the other hand, changes do not always mean progress.

There is nothing easier than finding fault with current practices--especially when they are somebody else's practices--and there is nothing more futile than mere fault finding. There is no need to justify existing teacher-education programs, for each of them has a rationale and full justification. My only reason for not summarizing them at this time is that any educator can present the rationale and justification at least as well as I.

We need not fear to abandon any feature of teacher-education programs as we know them, provided that we do not abandon it lightly, without justification, and without a more promising substitute. If modifying any feature will lead to our getting a better and more stable school staff and to improving the education our children receive, we cannot afford to perpetuate existing practices out of respect for tradition.

In developing new programs of teacher education we must examine the present and look to the future, rather than merely continuing what was developed in the past.

THE PROFESSIONAL SEQUENCE FOR PREPARING URBAN TEACHERS

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Many teacher preparing institutions have a long history of offering their students fieldwork in schools serving the urban disadvantaged. Nevertheless, large numbers of beginning teachers are uncommitted or ill-prepared for service in these schools. In order to recruit, prepare, and retain larger numbers of students who will be successful beginning teachers it is necessary to: (1) make changes in the program and character of the urban school, thereby modifying the role of the teacher, and (2) develop appropriate programs of teacher education for future teachers of the disadvantaged. Although the following discussion will deal with only the program of teacher education, it is necessary to note that such preparation cannot be appropriate if it is intended merely as training for schools as they presently exist. Schools must themselves be engaged in a constant process of modification and improvement, and teachers must be prepared who can participate in and initiate such change.

There are four critical characteristics of the teacher-education program that determine its influence on students. These will be discussed before proposing the actual content of the professional sequence. Following the overview of the professional sequence, suggestions will be made regarding important conditions that affect the process of offering the proposed program.

Characteristics of the Program

The degree to which a future teacher is influenced by his program of preparation is not simply a matter of the courses he takes. There are four factors that can free him to learn or block his development as a teacher: (1) the degree to which his program of studies has been individualized, (2) the intensity of his contact with individuals whom he perceives as professional models, (3) the degree of freedom he has had in the course of his professional laboratory experiences, and (4) the nature of the help he receives as a first-year teacher in an urban school. These characteristics of the teacher-education program directly influence what students learn, the attitudes they develop related to this learning, and their ability to translate knowledge and feelings into practice.

Individualization. The process of individualization is not only the means by which the student is pushed to the limits of his ability, rather than run through a stereotyped series of mazes, but the means by which he has been made to feel personally involved and committed to the cause of education. In this area much can be learned from the Peace Corps training program in which large numbers of volunteers are prepared--but in small groups that stress the individual's commitment to his peers and to a great social cause. During their training period, Peace Corp volunteers are task-oriented rather than grade-oriented. They are learning particular skills and acquiring knowledge that will be immediately useful, rather than completing a series of courses for which they might see no purpose other than that these courses are required for certification or graduation. Their drive and motivation is internal rather than superimposed. But most of all, their preparation is perceived as the beginning of a period of temporary service rather than as the completion of a series of accomplishments for which one is forever certified as a skilled practitioner. Other important factors are living and working together during the period of preparation and the total spirit of commitment that develops when an individual identifies with a group that he perceives as self-enhancing. The preparation of dedicated teachers can also result from a similar demonstration of concern for the individual pre-service student's needs, his perceptions, his problems, his abilities, and his contributions.

Focusing on the individual is not only an effective means of developing the commitment needed by teachers of the urban disadvantaged, it is also the best process for teaching students the concepts they will need to apply as beginning teachers. Examples of the questions that can be asked of all teacher-education programs and that must be answered by programs preparing urban teachers follow. Are the course requirements the same for all students regardless of their age, experience, previous course work, or actual knowledge? Within given courses are the assignments the same for all students? Are the courses planned to be the same length for all students? Is the period of student teaching or internship the same length of time for all students? The basic point here is that rather than making special provisions for one or two individuals who are grossly different from the main body of students, we should make "special" provisions for all students. The "regular" program should be characterized by the irregular manner in which it is offered to various students. This is not to say that there is no body of professional knowledge and behavior that is common to all teachers but to recognize that students preparing to teach begin at different points, learn in various ways, and proceed at different speeds.

The education of a teacher is a process whereby each individual is offered numerous personal choices as he lives through a variety of experiences. Hopefully, this process results in his coming to terms with himself. There is, therefore, no mass method for preparing teachers. Any proposed program, regardless of size, must be organized to effect change in each student.

Professional models. Substantial reseach evidence indicates that few students are changed in any important ways as a result of going to college (3). Some experts explain this condition by pointing to college curricula that do not try to help students see purpose and application for their studies. Others point to the lack of commitment among students themselves. In summarizing his recent study of college students one researcher states:

> The real problem on American campuses are students who don't riot--or do anything else---Most students today are apathetic. The great unsolved problem is the student who doesn't do anything except go to class and go home...American campuses are flooded with students indifferent to intellectual questions and interested only in getting degrees as passports to good jobs (3:000).

The faculty encountered by the student can affect his enthusiasm, his values, and his ways of seeing and knowing. As a result of working closely with college and public-school personnel, many students preparing to teach merely reinforce their preconceptions and stereotypes; others actually change in the way they view school situations, in their conceptions of the teacher's role, and in their perceptions of themselves as teachers. The most effective means for helping students to change is to place them into contact with mentors and guides--regardless of what they teach--who are themselves actively engaged in the process of searching, growing, and changing.

College students preparing to teach in urban areas cannot be left in a state of apathy. On the contrary, they more than any other students, must be influenced to become involved as active participants in the cause of educating the disadvantaged. Since contact with persons who can serve as models is an important means of effective student change, it is necessary to secure professional, dedicated college and public-school staff who believe in the particular urban teacher-education program being offered and who will influence students under their aegis to take on similar values.

Freedom. In addition to an individualized program of studies and an opportunity to associate with positive personal models, students preparing to teach must have much direct experience in working with youngsters. The classrooms and schools in which students do their fieldwork can be real "professional laboratories" only if students have the opportunity to experiment, to try, to test, and to find out what will not work for them as well as to emulate the proven methods of their supervising teachers. This period of actual participation with youngsters (observing, tutoring, assisting, student teaching, interning) is one of the few times in their college careers that students can become actively and totally involved in the process of learning. Educators responsible for planning programs of teacher education must decide in which experiences students will be truly free to learn and at what point they must demonstrate the minimum competencies required of a beginning teacher. Unless this is done there can be no conscious planning regarding the areas in which the student is permitted to explore, to fail, to reflect, to try again.

One of the persistent problems related to fieldwork is that there are never enough good cooperating personnel with whom to place students. Finding able, experienced teachers to work with students is an even greater problem in schools serving the urban disadvantaged since these schools frequently have large numbers of beginning teachers who cannot yet be given the responsibility for supervising others. It is an unfortunate paradox that the very schools that can serve as the best learning laboratories for educating urban teachers are frequently lacking in the personnel to help prepare the teachers needed for these schools. Since students must often be placed with less able teachers it becomes imperative that they be guaranteed the freedom to explore methods and materials that go beyond the practices of their cooperating teachers.

In addition to actively involving students and to pushing them beyond the level of the personnel who help to prepare them, there is a third important reason why freedom is an essential characteristic of the teacher-education program. Once we admit that traditional school curricula must be changed and made more responsive to the backgrounds and needs of urban disadvantaged youngsters, we must also recognize that future teachers must be prepared in a manner that encourages them to initiate and participate in change. One effective means of preparing students for service in dynamic, changing schools is to offer them the freedom to change at least their own behavior as students. Nothing will undermine student initiative and their potential value in schools serving the disadvantaged as will their observation that many teachers are "successful" because they follow directions, emulate others, and refuse to "rock the boat." To prepare teachers to practice methods that are presently unspecified, with materials not yet developed, in schools that are still to be conceived, we must offer them as students wide latitude and encouragement to be unrestricted inquirers into the processes of teaching and learning.

Help. Student teachers, interns, and first-year teachers inevitably reveal many areas in which they need to develop further. Most of these needs should not be viewed as deficiencies but as natural shortcomings that can be anticipated in learning the very complex process of teaching. It is crucial that students and beginning teachers learn more than a feeling of inadequacy in handling the problems that naturally arise in working with youngsters.

If the teaching, supervision, and guidance offered to students during their direct experiences are judgmental rather than helpful, little thinking and learning will take place. Present practices that require the same college personnel who serve as helping persons to also grade, recommend, and certify, force students to become focused on pleasing those whose judgments can control their careers. It is not difficult to imagine why students do not readily reveal their needs and make themselves even more vulnerable in a situation that is so thoroughly judgmental. Newer programs of teacher education have experimented with relationships that place students into contact with individuals who offer only help; judgmental decisions are made by others.

The same problem of separating help from judgment-making is magnified during the first year of teaching. The principal or supervisors who are expected to really help the neophyte cannot be the same individuals who rate his competency and compare him to others. If the same individual performs both functions, it is unrealistic to expect the beginning teacher to be honest about his problems and needs. But even more important, the beginning teacher with problems may view himself as inadequate, when he should be encouraged to regard his situation as normal.

The first year is an especially vital period in which to really help the teacher. The beginner is faced not only with the immense task of reconciling the gap between theory and practice but also with suddenly assuming a great deal of professional responsibility.

The notion that it is only "fair" for all teachers to have the same responsibilities is indeed unfortunate. The beginning teacher, particularly in an urban school serving a disadvantaged population, needs fewer pupils, fewer pupils with extreme problems, more planning time, fewer extra duties, and more opportunities to observe and to be observed than the established, veteran teacher. Most of all, he needs real, on-the-spot help with his problems from someone in a non-judgmental role.

A major goal of teacher education is to free the student to think creatively about real problems. If the individuals with whom he works do more judging than helping, thinking will be curtailed. It would be unfortunate for teacher education if most judgments about students were made in the period when they could potentially change most--during their professional laboratory experiences and their first year of teaching.

The Professional Sequence

A group of expert teacher educators attempting to specify the ideal preparation for teaching included the following elements:

1. A liberal education geared to the general problems of living in the present century.
2. Specialized preparation that includes the content, method, and structure of a discipline, particularly as it relates to teaching.
3. Professional education adds:
    a. Insight relative to learners and the learning process
    b. Understanding of the contributions and potential of various types of educational programs
    c. A commitment to continuous learning and a sharing of learning with others
    d. Skill in teaching and the use of instructional materials
    e. An understanding of the process of changing curricula
    f. Skill in the use of research
    g. Growth in assuming the responsibilities of a member of the teaching profession
    h. Growing competence in interpreting education to the community (2).

More recently, other teacher educators studied research related to the actual behavior of successful teachers, consulted with theoreticians on the nature of conceptual learning and suggested that preparation for teaching include study in five areas: analytical study of teaching, structures and uses of knowledge, concepts of human development and learning, designs for teaching-learning, and demonstration and evaluation of teaching competencies (1).

The most fruitful approach for determining the content of teacher preparation is to begin with a thorough description of what successful beginning teachers do. These behaviors can then be analyzed to determine the nature of the knowledge and attitudes from which they are derived. Once the knowledge and attitudes are known, they can be taught to students. This approach of beginning with an analysis of teaching behavior is diametrically opposed to the present practice in most teacher preparing institutions where it is assumed that if a student studies educational foundations, and learning and teaching methods, he will naturally gain the knowledge and attitudes needed to perform successful teaching behaviors.

The following program description does not propose a set of college courses. Instead, it suggests six areas of study derived from observing the performance of successful teachers in urban schools. These are the nature of the subject matter, the nature of children and youth, the nature of the educational setting, the nature of the process of learning, the nature of teaching, and the nature of self. Following is a brief description of teacher behavior in each of these areas. These behaviors are offered as examples and not as an exhaustive review of the behaviors that account for success among beginning teachers.

The Nature of the Subject Matter

All teachers must have a thorough knowledge of their subject matter, the way it is organized, and the processes by which new knowledge is added to the field. But these are minimum requirements. The critical behaviors in teaching relate to the ways in which pupils are helped to see purpose and meaning in what their teachers would have them learn. One factor that seems to account for much successful pupil learning is the teacher's enthusiasm.

It is evident that the teacher's enthusiasm for some discipline, topic, or area of study is often contagious. The critical element in determining how much pupils learn does not seem to be inherent in the subjects themselves, in the manner in which they are organized, or in the basic ideas that characterize these disciplines. The most important determinant of how much pupils learn seems to be the degree to which the teacher demonstrates that he thinks the material is important and that he values it and regards it as useful.

The same phenomenon of teacher enthusiasm seems to be true for teaching processes of learning related to particular subject matter. In cases where teachers value the problem solving approach, inquiry training, or any other particular method of learning, the pupils soon adopt the processes favored by the teacher.

The problem of making teachers competent in their subject matter, therefore, is at least three layers deep. First, they must be helped to learn a great deal about the content and methodology of the areas in which they propose to offer instruction. Second, they must develop skills related to helping others see value and meaning in this material. If a key teacher behavior related to the transmission of subject matter is the teacher's demonstration of enthusiasm, teacher-education programs must be designed to include this behavior as an objective of the preparation.

The Nature of Children and Youth

All teachers should have a thorough knowledge of the stages of development that characterize youngsters' growth, with particular emphasis on the particular age groups with whom they work. In addition to this general knowledge, however, teachers must know the specific maturity levels of the pupils in their classes. Such knowledge is necessary for organizing the classroom.

The work of successful beginners is characterized by a well-organized work situation based on the interests and needs of pupils at particular stages of development.

The classrooms of successful beginners are rooms in which individuals are able to predict the behavior of others: Pupils know what they are about and what their peers and the teacher are doing. But more important, pupils seem to know the written and the unwritten rules guiding these behaviors. The ease that seems to characterize the successful situations may also be due in part to the fact that teacher and pupils share common understandings regarding materials and their use. The result of these mutual understandings is that the participants in these classroom interactions have the power to predict their own actions and, to a great degree, the responses of others.

The difference between a rigidly autocratic classroom and a well-organized one that is not harmful to youngsters is that the latter is based on the teacher's knowledge of growth and development. There must be rules, and the rules must be followed. Rules offer security and enable groups to occupy the same space, use the same materials, and work cooperatively. But rules must be in harmony with the child's nature and should enhance rather than work against his development. A well-organized classroom is a behavioral demonstration of the teacher's knowledge of pupils' nature and growth. Programs of teacher preparation must go beyond offering course work in child growth and development and provide opportunities for students to engage in the specific teaching behaviors that derive from such knowledge.

The Nature of the Educational Setting

In order to conceptualize an appropriate role for the urban school and its teachers, students should study the nature of the urban neighborhood. As they become familiar with the life styles of urban youth, the students may increase their ability to empathize and to see positive attributes in youngsters who are able to grow in spite of numerous adverse environmental influences. Teachers who are receptive to the positive characteristics of youngsters demonstrate that they believe in and respect the abilities of these youngsters.

The verbal behavior, body gestures, facial expressions, and written communications of successful beginning teachers all give clear indication that they believe in their pupils. Their behavior indicates that they think pupils can learn the work at hand and have unlimited potentialities. Rather than being sentimental, maudlin, or condescending, the successful beginning teacher assumes that nothing is too difficult--provided he knows appropriate teaching procedures.

Beginners who do not manifest belief in their pupils place the blame for learning difficulties entirely on the youngsters, but teachers who believe in their students are willing to assume some professional responsibility for what their pupils learn. Statements such as: "This is good enough work for these kids" or "This is the best you can expect from them" imply that the teacher thinks he knows the maximum that can be expected of his pupils and are examples of a deprecating teacher attitude. Successful beginners give pupils work at which they can succeed but expect them to persistently advance to new levels.

Future teachers should study the school setting to gain knowledge and develop attitudes that will help them to demonstrate behaviors of respect for and belief in the potentialities of the youngsters with whom they will work. These teacher behaviors should be included among the objectives of teacher-education programs.

The Nature of the Process of Learning

By their behavior teachers should demonstrate that they can implement principles of learning in their work with pupils. One kind of behavior that shows such teacher understanding relates to the standards of work established in the classroom.

Successful beginners frequently set more than a single expectation for a group--there are varied expectancies for different youngsters. Behaviors that lock a class together (e.g., giving the total group the same assignment to be completed in the same period of time; using the same reading material with a total group; explaining, giving information, and discussing with the whole group) are less frequent among successful beginners than behaviors that establish multiple standards (e.g., giving assignments on a variety of levels to be completed in differing lengths of time; working with individuals and sub-groups within a classroom; allowing pupils to make choices and participate in decisions related to their assignments).

The essence of these behaviors is that the teachers' acts encourage pupils to believe that they can succeed if they try. Some beginning teachers experience difficulty because they expect too little and rationalize their actions by underestimating what can reasonably be expected of "these kinds of kids." Others have difficulty because they set rigid goals that are beyond even their most able pupils on the pretext that the curriculum must be "covered." Successful beginners set standards that reflect pupils' needs without pandering to them. Because they accomplish tasks that they themselves value and because they are capable of evaluating their own success, pupils in these classrooms seek little external reinforcement.

The program of teacher education cannot include a course in educational psychology and assume that such study will influence students' future behavior as teachers. The emphasis must be on opportunities for students to behave in ways that indicate they understand the nature of learning at the same time they support their actions with theories and principles of learning.

The Nature of Teaching

A good indication of whether a beginner understands the nature of teaching is his willingness to listen to pupils. Professional listening requires that the teacher: (1) be attentive, (2) remember, and (3) utilize pupils' talk. Being attentive means giving each youngster real attention--not allowing him to address a teacher distracted by other tasks or engaged in other responsibilities. Remembering what pupils have said enables the teacher to understand the process of pupil growth and to plan future activities. The teacher's ability to use pupils' ideas is reflected in his questions and in the manner in which he attempts to extend thinking by combining pupils' statements and encouraging clarification.

All of these critical behaviors are derived from the intern's initial willingness to listen. Less successful beginners seem to regard their pupils' talk as some form of interference, but more successful teachers attempt to elicit pupil talk as one of their major purposes. If teacher-education programs are to be derived from successful teaching behaviors, there must be plans for offering students practice in listening and using pupils' ideas.

The Nature of Self

A teacher who is aware of himself is willing to examine his own motivations. He has the ability to understand the nature of the influences he is exerting on his pupils. This is the most difficult area in which to offer instruction, yet, perhaps the most important.

Successful beginners assume major responsibility for the quality of their interactions with youngsters and do not hold others, the pupils, or environmental conditions responsible for their actions. These teachers are also aware of their feelings and attitudes and recognize when they act in anger or in response to some prejudicial attitude. More important is the ability to consciously control their behavior. They decide when they will be eliciting or directing, stimulating or comforting.

The program of preparation should include many opportunities for students to evaluate and describe their own actions. Any program of teacher education that gives students practice in understanding and controlling their own behavior is truly useful.

The preceding discussion of the relationship between the behaviors required of beginning teachers and the six areas of study from which the behaviors are derived is summarized in Figure 1. These six areas should not be regarded as six courses. They are the areas from which the courses in the professional sequence should be developed. Each course in the professional sequence should include some material from all six of these areas.

Figure 2 incidates the five courses proposed as the professional sequence, the related field work, and the approximate time required for these experiences. In total, this program would account for approximately one-fourth of the student's undergraduate hours exclusive of the period of internship, which is viewed as a fifth year to bridge the gap between a student's preparation and his first year of practice.

Suggestions Related to Offering the Professional Sequence

1. The program should be viewed as the preparation of a beginning, not a completely finished teacher. The emphasis is on developing the student's propensity for in-service self improvement not on his demonstrated mastery of

Figure 1.

SOURCES OF
THE PROFESSIONAL SEQUENCE

Areas of Study From Which Successful Teacher Behavior is Derived	Examples of Successful Teaching Behaviors	Examples of What Should Be Practices in the Program of Preparation to Develop Required Behaviors
1. The Nature of Subject Matter	1. Enthusiastic about subject matter	1. Arouses youngsters' interests in studies that they do not enjoy or in areas new to them
2. The Nature of Children and Youth	2. Organizes classroom in terms of youngsters' developmental levels	2. Prepares materials, gives directions, and simutaneously guides the work of various groups of youngsters
3. The Nature of the Educational Setting	3. Demonstrates basic respect for pupils	3. Gathers data about the school neighborhood and applies this knowledge to unblock or increase youngsters' learning
4. The Nature of the Process of Learning	4. Sets standards that lead to success	4. Sets individual standards at which youngsters can succeed and that they regard as worthwhile
5. The Nature of Teaching	5. Uses pupils' ideas to clarify thinking and values	5. Listens to pupils. Remembers what they say. Uses their ideas to clarify their thinking.
6. The Nature of Self	6. Evaluates his own ideas, feelings, and behaviors	6. Introspects regarding the effects of his attitudes and behaviors on his work with the youngsters

Figure 2.

THE PROFESSIONAL SEQUENCE

Courses	Related Field Experiences	Approximate Time
1. Educational Foundations (Basic concepts from the fields of psychology, sociology, anthropology, humanities and social science relevant to the work of the teacher.)	Tutoring Individual guidance School aide	10 weeks 8 hours per week
2. Urban Studies (An application of social science principles to the school neighborhood in which the student is working.)	Work in a community agency	20 weeks 12 hours per week
3. The Observation and Analysis of Teaching (By focusing on real situations, students are helped to learn about their perceptions, interpretations, and value judgments regarding teaching-learning situations.)	Direct observation in schools Indirect observations via films, tapes and TV	15 weeks 8 hours per week
4. Educational Research (A study of various descriptive systems of teaching. An emphasis on research skills that will enable the student to systematically study his own teaching.)	Student teaching	15 weeks Full days
5. Methods and Media of Teaching (An application of methods to the student's first responsible teaching. Practice in the utilization of all available means of educational technology.)	Internship	35 weeks Full days

teaching skills while a student. In order for the guidance and supervision offered students and beginning interns to be truly helpful, college faculty and public-school personnel must share this view of pre-service preparation.

2. The program should bridge the gap between a particular university and urban school system. Internship programs and joint appointments are very useful in this regard. Most important, however, is a feeling of responsibility to the urban school system on the part of the college faculty who participate and a feeling of involvement in teacher education on the part of the public school personnel. This mutual commitment is a potent force in motivating students to enter urban schools and to remain as successful beginners.

3. Students' first requirement is to become successful college students. They should be free to volunteer for the program preparing urban teachers once they have demonstrated they are likely to remain in college.

4. Students' professional course work should be centered on the school neighborhood in which they will actually work. For example, a course in urban studies might include the preparation of a term paper, report, or film on the student's actual school neighborhood; a course in research methods might include interviewing parents and other citizens of the particular school neighborhood.

5. Wherever possible, student teaching and internship experiences should be offered in the same schools to which students are assigned as regular teachers. This will enable the student to readily transfer and apply what he learned as a student to his work as a regular teacher.

6. Teachers, principals, and other personnel from schools used as training centers should participate as fully as possible in offering course work, supervising direct experiences, and as resource people.

7. Since experimental programs require a great deal of extra time for

meetings, planning, and evaluation, college faculty who participate should have a reduced number of students and classes to teach.

8. Faculty commitment is a crucial element. High turnover and limited involvement by college personnel who are responsible for the program should be avoided. Various experiments of teaming faculty members who have particular competencies and attaching them to a particular class or group of students should be tried and evaluated.

9. Graduates of the program should be followed into practice and evaluated. Wherever possible, elements of the program should be revised in response to the graduates' teaching performances.

10. Components of the program should be developed and offered to in-service teachers who wish to improve or to transfer to urban areas. A modified professional sequence based on the internship should be developed as a fifth-year program for college graduates who decide they are interested in urban teaching.

Summary

This paper has emphasized four main considerations of a teacher-education program that would attempt to prepare teachers for urban schools: (1) the degree to which the program is individualized, (2) the nature of the personal models exerting influence on students, (3) the kinds of help offered students, and (4) the freedom permitted students in the course of their fieldwork.

Before a professional sequence was proposed, the source of such a sequence was described as composed of six areas of study. Samples of teacher behavior exemplifying each of these areas were presented. These were the nature of subject matter (enthusiasm); the nature of children and youth (organization); the nature of the educational setting (respect); the nature of the process of learning (standard-setting); the nature of teaching (listening); and the nature of self (introspecting).

Following this analysis, five courses were proposed as the professional sequence for urban teachers: educational foundations, urban studies, the observation and analysis of teaching, educational research, and methods and media of teaching.

Suggestions for offering the program focused on the nature of the involvement of college and public-school personnel in the joint effort of preparing teachers.

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TASK FORCE TWO REPORTS

Task Force Two was asked to describe the teacher-education curricula and related experiences most likely to elicit the teacher behaviors described by Task Force One. After discussing the papers prepared by Dr. Rivlin and Dr. Haberman, Task Force Two divided into small working groups. These groups discussed the following topics:

(a) the training of pre-tenure teachers,

(b) the continuing or in-service education of tenure teachers,

(c) the organization and functions of the training or demonstration centers in disadvantaged areas, and

(d) the modifications in school organization and administration that will be required to implement the new teacher-training program.

This report will start by enunciating some basic principles of teacher education that were accepted by the members of the Task Force. The rest of the report will summarize the group discussions. Because of the limited amount of time and the complexity of the issues, these discussions were necessarily incomplete and fragmented. They do offer, however, some helpful suggestions and insights into the problems of educating prospective teachers of the disadvantaged in urban areas.

SECTION ONE: SOME BASIC PRINCIPLES OF TEACHER-EDUCATION PROGRAMS

The following principles are not intended to be inclusive but will indicate and illustrate some of the major concepts of teaching training that were emphasized through the Task Force meeting.

1. Teacher education is a joint responsibility of school systems and universities.

2. The preparation of teachers is a continous process, beginning when a prospective teacher is first identified and continuing through tenure status.

3. During the entire process of preparation, the prospective teacher should be evaluated in terms of the demonstrable behaviors expected of successful teachers. (See Task Force One's Report.)

4. Prospective teachers should be provided with a series of cumulative field experiences increasing in complexity. Gradation of learning should be stressed in clinical experiences so that a prospective teacher will, through success in less difficult activities, be gradually built up to maximize chances for success in the most difficult circumstances.

5. A meaningful all-university approach and commitment to teacher education should be implemented through the involvement of all faculty members, not just professors of education.

6. College and school-system staff members should be employed in such a way as to utilize fully their respective areas of experience and knowledge in teacher-education programs.

7. Prospective teachers should have an opportunity to visualize varieties of opportunities in teaching and the chance to develop professionally in areas of particular interest or strength.

8. Programs should be formulated in such a way as to provide considerable elasticity so that the individual needs, differences, and backgrounds of students can be taken into account.

SECTION TWO: THE TRAINING OF PRE-TENURE TEACHERS

The pre-service program of teacher training should be regarded as the first phase of a continum, building on cumulative field experiences and course work from the time the prospective teacher is admitted to college until he has successfully completed a probationary period and has attained professional status and tenure. During the pre-service program, the pre-tenure teacher will be involved in the interrelated processes of knowing (foundational knowledge), doing (applied knowledge and skills), and being (knowledge of self).

In the limited time available, several members of the Task Force attempted to illustrate under the rubric of these interrelated processes the type of curricular content and experiences that would be most helpful for pre-tenure teachers in depressed urban areas.

Knowing (Foundational Knowledge)

Pre-tenure teachers should take a one-year course in urban studies taught on an inter-disciplinary basis and specifically directed toward the particular urban area in which the teacher-education program is being offered. Faculty members from the various academic departments would take the responsibility for relating their disciplines to school problems. The course, for example, might consist of units in the following areas: anthropology (characteristics of ethnic groups that comprise the city); sociology (demography, ecology, housing patterns); political science (city government and local power structure as it relates to school organization and administration); social work (characteristics of the disadvantaged); and consumer economics.

It would be of the utmost importance for all faculty members to use their respective disciplines to bring meaning to urban studies. Rather than leaving the generalization and transfer to the students, the professors should focus the students' attention on the actual related problems of the city--at least in giving examples.

In the course on urban studies considerable attention would be devoted to analysis of the role and function of the school in urban society. The course might include consideration of social foundations, the school in urban society, control of the school, financing the school, major problems (mobility, integration), and comparative elements (historical, cross-cultural).

The professional education aspects of the urban-studies course might also be taught in an interdisciplinary manner, with professors of administration, educational historians, and educational philosophers discussing urban school problems from the perspective of their specialties. Early in the prospective teacher's pre-service program, individual conferences should be held with the student. Questions such as "Why do you want to teach?" would be raised. These conferences would not be designed for purposes of teacher selection but to further self-understanding. Visits to schools would be encouraged as a means of acquainting students with conditions in disadvantaged urban areas. By visiting different types of schools at different grade levels, students will be better able to decide on the level of teaching they prefer.

Future teachers need subject-matter mastery that often differs from the college definition of mastery. For example, courses in integrated general science, new mathematics, and the structure of language should be developed and offered to future teachers. The instructors of these courses should be familiar with the latest developments in subject-matter requirements for schools and in new developments and trends in the subject field.

Doing (Applied Knowledge and Skills)

As the prospective teacher progresses in the preparatory program, there should be a constant pattern of direct experiences with disadvantaged children and of increasing responsibilities. As Dr. Rivlin suggested, the prospective teacher would work progressively as a community aide, a teacher aide, an assistant teacher, a student teacher, and an intern. At each step of this progression, the student would assume more responsibility in working with individual students and in classroom management and control. The students would be compensated for their services because they would be providing valuable services for the overburdened teachers of the disadvantaged.

Courses in methodology, psychology, and curriculum would be synthesized and offered in conjunction with the direct experiences. An inter-disciplinary approach and team teaching would be stressed in the instruction in these areas.

In the later stages of the field experience sequence, the course work given the students should be of the seminar type. Individual counseling should be provided with some emphasis on human relations.

Qualified personnel from the school system as well as the college should be utilized to the fullest extent in all phases of this preparatory program, with emphasis placed on acquiring the services of the best and most knowledgeable people. Salaries and status should not be determined solely by advanced degrees and publications but by ability to do the required job in the disadvantaged school setting.

At the intern's level students could work about half time and could also engage in inter-visitation with other interns. Course work (knowing) would continue through open-ended seminars. It is important to permit the interns to interact freely with one another. They should be encouraged to discover that their teaching problems are not unique and are shared by others at a comparable stage of professional development. Individual counseling (being) should also continue through the internship.

At the conclusion of the year-long urban studies course, students should know, wherever possible, the schools to which they will be assigned as assistant teachers. They should be able to remain in this school as student teachers and intern teachers and even be assigned there as regular beginning teachers. This would enable the students to begin to apply their foundations knowledge to a specific urban neighborhood as soon as possible. (This is admittedly difficult, however, it is worth the effort to maximize transfer.) It would also permit the students to overcome their fears as quickly as possible.

Once a student has completed the internship and is regularly appointed as a beginning teacher, he could, if interested, take additional course work to deepen his subject-matter mastery or to meet some other personal or professional need. This course work should not, however, be done on an extension basis. Beginning teachers should be limited to one course a semester and should strive to study intensively during the summers. To avoid overburdening beginning teachers, school systems should provide released time, if necessary, for advanced study during the school day.

Being (Knowledge of Self)

The prospective teacher can increase his self-knowledge through individual conferences with faculty members and supervisors and through seminars at which observations and perceptions are shared. As freshmen or sophomores, the future teachers might take a discrete course called "Observation Seminar" to support the "being" area of their education as teachers. Throughout their training program students would have individual conferences and seminars during which they would be encouraged to explore introspectively their attitudes toward pupils, colleagues, and the neighborhood in which they are working. They should also engage in self-evaluation regarding their motivations, fears, threats, etc.

It is important to emphasize that the three processes of "knowing," "doing," and "being" are present and of vital concern in every stage of the teacher's development. A single process may, however, be emphasized more strongly during a particular phase of a teacher's development. For example, "doing" would be emphasized more during the latter part of the undergraduate program than in the freshman or sophomore year.

SECTION THREE: THE IN-SERVICE OR CONTINUING EDUCATION OF TENURE TEACHERS

The education of teachers is a continual process that does not terminate upon the achievement of tenure status. All teachers should take advantage of in-service opportunities to keep up-to-date in their areas of specialization, to become aware of developments in other fields, to develop new skills in dealing with pupils and with teaching itself, and to renew their enthusiasm and vitality through cultural and recreational activities.

The recent proliferation of knowledge has added immeasurably to the burdens of the teacher. The teacher has a responsibility to keep up-to-date with developments in his area of specialization and with new developments in methodology. An integration of these facets in in-service programs is of primary importance, inasmuch as they are not and cannot be separated in practice.

No one familiar with the enormous drain of teaching on an individual's energy can deny the importance of providing teachers an opportunity to renew their enthusiasm and vitality through cultural and recreational activities. The components of this area of an in-service program are difficult to articulate, but its importance cannot be ignored.

Teachers engaged as critic teachers share a responsibility with preparatory institutions, and because of the unique, integrative, and important function they fulfill should constitute a carefully selected group. It is especially imperative that critic teachers involve themselves in a rigorous in-service education program.

The Task Force suggests that a school's staff should constitute itself as a study group, dealing with some problems of in-service education as a committee of the whole, and with others as sub-groups or individuals. Colleges should provide leadership in guiding the activities of these groups and sub-groups. The study groups composed of college and school staff might concern themselves with topics such as:

1. A consideration of what the entire process of urban education involves. The demonstration center (see Section Four) would be particularly involved in this kind of inquiry, and feedback from the participating teachers would be valuable for both school and university staff members and students.

2. The unique role of the critic teacher--the contradictions in behavior that the separate roles of models, confidant, teacher and grader seem to imply.

3. New approaches in instruction: team-teaching, block-of-time scheduling, programmed instruction, non-graded classes, new approaches in general.

4. An investigation of approaches for involving parents and the urban community itself in education. Such investigations might consider, for example, the efficacy of utilizing social workers in involving parents, or the problems raised by parent-teacher inter-relationships.

5. An exploration of the sociology of the area served would be of great importance, involving considerations such as racial, economic and religious or political distinctions. This type of analysis might lead logically to modifications of the curriculum, thus fulfilling a dual purpose by aiding pupils in the educational process and also demonstrating to prospective and in-service teachers the value of indigenous curriculum change.

6. Critic, pre-service, and in-service teachers would derive considerable benefit from developing their own instructional materials; resource personnel and facilities should be made available to teachers for just this purpose.

7. Exploring methods of developing interviewing and conference techniques as an adjunct to the formal teaching function.

It is hoped that the universities and colleges will recognize the special capabilities of some teachers of the disadvantaged, perhaps by employing some of these teachers as resource people or even as instructors. College instructors should also be encouraged to teach a term or so periodically in the public schools. The advantages of such an exchange for increasing meaningful communication between college instructors and their students would be considerable. It would also undoubtedly facilitate the organization by colleges and universities of the broad, integrative courses necessary to familiarize career elementary and secondary teachers with new developments in their field and in education. These problem-centered courses might logically develop into problem-centered research projects carried on by teachers both for individual benefit and college credit. It is hoped that such procedures and approaches will integrate the activities of elementary, secondary, and college staffs in a manner rarely achieved in the past in the in-service as well as pre-service education of teachers.

Two points warrant further emphasis: (1) The professional growth of teachers is continuous and cumulative and does not terminate upon the achievement of tenure; and (2) the teachers themselves should determine to a much greater extent their in-service needs and the types of courses or activities that should be formulated to meet these needs. School systems should assume greater responsibilities in the entire area of in-service education.

The problem of in-service education for administrators was also discussed. This area has often been overlooked in conventional programs. Its omission is a serious breach of logic when the generally recognized approval by administrators of such programs for teachers is considered. The Task Force suggests that each administrator and supervisor assume responsibilities for the following activities:

1. A coherent, orderly program of in-service education for himself and for his fellow-administrators.
2. Continuing work with his staff in solving their problems.
3. Responsibility for helping the staff become more effective in teacher preparation and induction in urban areas, in conjunction with other concerned agencies in the city. Such activity on the part of administrators and supervisors should aid immeasurably in widening their view of school area problems, would foster realistic appraisals by the staff, and would prevent the redundancies of service that are so often the targets of critics of large urban enterprises.

SECTION FOUR: THE SCHOOL-UNIVERSITY TRAINING CENTER

The children who attend the average school in the average community come from homes where parents provide necessary psychological support and security, where there is an expectation of success and of receiving praise, where children can retreat for safety, where intellectual activity is regarded as normal, and where children are assured of some privacy in their study facilities. The children who attend school in disadvantaged areas do not have these advantages in their homes. Insofar as is possible, the school-university training center should compensate for the child's poor home environment by providing a good home atmosphere at the center.

To make up for the lack of a father in many of the homes, the school should have an abundance of men teachers and other personnel. The center should be an attractive place with curtains on the windows, flowers, and other such homelike touches. Each child should have a cubbyhole he can call his own --a private locker with a private lock. There should be places where the children can study, both independently and with help available. Children should be able to retreat to the center for privacy and safety, and the personnel at the center should make these children feel that they can succeed and that they are worthwhile individuals.

If possible, a new building should be constructed for the center and new personnel should be employed. If this is not possible, an existing building with a good principal who is sympathetic with the aims of the center should be chosen. The center staff should have control over the initial hiring of sympathetic professional personnel.

The administration and staff of the center need assurance from the university and from the school system that they are expected to depart from normal routine in order to accomplish their goals. Perhaps an overall planning board, consisting of representatives of both the school system and the university can be appointed to serve in an advisory capacity. A description of the prototype center developed for illustrative purposes by the staff group on teacher education of the Great Cities Research Council is given on pages 000-000.

The children at the center need opportunities to be released from their environment. Camping experiences would be valuable. Exchanges might be arranged class by class with students from an advantaged area. Perhaps individual students could live for a time with more advantaged students. A quick jet flight or bus trip might be arranged to take the children to a different state or city entirely.

Under all circumstances, basic skills should continually be stressed. The center should provide massive diagnostic help and a widespread program of remediation by means of tutoring, small group work, counseling, and guidance. Specialists in reading (diagnosis as well as remedial programming), music, art, drama, etc. should be available to the staff.

A program of assessment of the strengths and weaknesses, both of the staff and of the students, should be done through in-service education. Methodology drawn from such assessments should include:

1. Strategy of learning style. (See Reissmann, "The Strategy of Style," Teachers College Record, March, 1964.)
2. Individualization of instruction
3. Programs of tutoring
4. Counseling and guidance to provide the student with a sense of identity, a respect for his own worth, and to raise his aspiration level
5. Free time for independent action and to develop strengths
6. Help in developing skills in listening. This includes listening

not only to one another and to the teacher but to recordings as well. Special listening rooms should be provided for these purposes.

7. A chance to earn some money

8. Help in skills of planning, such as an elementary student looking ahead to junior high or a high school student looking ahead to college. At each level, the center should provide an opportunity for some involvement with the next higher level.

9. Activities designed to strengthen the student's self-image and worth; to help him provide needed services both in and out of school. In this connection the faculty should help the student translate various school activities into community service. Build in some civic activity so that the student gets the idea that he is a necessity in society not merely the recipient of governmental services. The center should provide transitions from the school community to the broader community. For example, safety consultations with the fire department, cleanup campaigns, community-school drama or musical groups.

10. Ways of handling difficult children.

The facilities of the center should be completely accessible to the community. The "lighted schoolhouse" concept is of utmost importance. Meetings should be held there. Library collections should be open at odd hours. Adult classes and hobby and special interest groups should be welcome. The usual type of adult classes operated by school systems will not be adequate; these classes need to be specially geared to alleviation of the problems of the disadvantaged.

An extended school day will help make the center truly a community center. It can provide leadership for community action, referral assistance for both adults and youth, a program of direct assistance, and school-community coordinators. Lay persons should be used in the last capacity. Agencies should have resident offices and officers in the center. These might include medical, dental and family services, the Visiting Nurse Association, public assistance officers, and the Police Athletic League.

In all these things the Task Force urgently recommends that specific provisions be made for instructional supervision and leadership in the construction of relevant curriculum and materials. This may not be left to chance nor to a person traditionally assumed to have the task.

Other, more specific, curriculum areas need to be considered. There should, for example, be a program of inter-group instruction at all learning levels. Children should have the opportunity of learning respect for their own culture. These might include:

1. Special units on Africa (or Puerto Rico or Mexico) should be studied in the lower elementary grades.
2. There should be an active utilization of foreign exchange students.
3. Historical realities concerning, for example, Eskimos and American Indians should be sought out and emphasized.
4. A more inductive approach should be used for mathematics and science; e.g., science teachers ought to know and make more use of natural resources available in the immediate community.
5. "Big" learning concepts (space, etc.) ought to be moved down to lower grades.
6. Special instructional attention should be given to nutrition and diet. This can be done by conducting diet surveys with parents' help and by conducting studies relating nutrition to school performance.

The Task Force urges that, whenever possible, the center operate as a non-graded unit. Disadvantaged children and their teachers should not be bound by the necessity of continual academic failure through the artificial standards of grade level performance.

Finally, the Task Force wishes to lay out, in capsulated form, some suggested ground rules for setting up a demonstration center. Since a basic purpose of the center will be to explore ways of improving the professional preparation of teachers who will work with disadvantaged children, answers to the following questions should be carefully considered.

1. What should the demonstration centers be like?
    a. It should be integrated racially both as to pupils and staff personnel.
    b. Provision should be made for a wide range of pupil ability, aspiration, etc.
    c. The patterns of organization should differ for experimental purposes.
    d. The size should be optimal--elementary 6-800, junior high school 800-1200, high school 12-1500. There should be experimentation in internal school organization making use of the school within-a-school concept.
    e. Use should be made of non-professional personnel for performing non-professional duties of teachers.
2. Where should the demonstration centers be?
    a. The centers should be in a sector that avoids de facto segregation, or pupils should be selected to achieve the desired integration.
    b. They should be located in an actual "difficult" school situation. Perhaps a "tough" junior high school whose service area is sufficiently inclusive socially and abilitywise could be chosen.
3. How do we select trainees for the demonstration centers? They can be selected through:
    a. early, systematic identification (in high school)
    b. giving college students an early opportunity to gain knowledge and experience essential to self-education
    c. testing the value of such early identification (e.g., youngsters from low vs. high social status, male vs. female, etc.)
    d. investigating other sources of teacher trainees (the kitchen, the bridge table)
    e. involving the school system in establishing entry standards that are relevant and acceptable to the college
    f. should reflect the cooperatively agreed upon personality and attitudinal requirements in the college's admission procedures for teacher education programs.
4. What should be the relationship:

a. between the staffs of the centers and the interns or assistant teachers?

   The interns and assistant teachers should learn through observation and consultation with the staff.

b. between the staff (including the principal) and the cooperating college?

   The college should have co-responsibility for staff selection, supervision, and consultation. Some members of the liberal arts faculty should serve as members of the center staff.

c. between the staff and the school system administration?

   The school system should be co-responsible for selection, supervision and consultation. The school system should pay its employees on the center staff extra because of their special responsibilities. The school system should provide released time for consultations, etc.

d. between the experimental center and its community?

   There must be careful preparation and involvement of the community before establishing the center.

5. What should go on in the center?

   The center should provide the assistant teachers and interns with:

   a. opportunities to participate in a thorough assessment of youngsters enrolled--their needs, backgrounds, etc.

   b. opportunities to participate in planning for individualization of pupils' programs in terms of their needs

   c. opportunities to learn from interdisciplinary teams from the behavioral sciences

   d. opportunities to have direct learning experiences in working with parents and community groups

   e. opportunities to learn diverse means and instruments for evaluating pupil growth

   f. opportunities to participate in the design of learning experiences related to pupil needs and to educational objectives

   g. opportunities to create appropriate learning materials

   h. opportunities to relate college learnings about child growth, learning process, and educational objectives to what is observed and experienced in the center

i. opportunities to feed back the experiences and learnings from the center into subsequent phases of the program on campus

j. opportunities to work directly with children in a counseling-child study manner in order to learn how to incorporate what he learns into the classroom program

k. opportunities to explore and work with a variety of material and human resources in the near and larger community

l. opportunities to share real life situations with pupils and parents (such as camping).

m. opportunities to work with small and large groups of pupils as determined by the nature and purpose of the group. (Hobby groups and special interests might be bases for some such group experience.)

n. opportunities to learn certain specific skills such as:

   1. teaching children how to study
   2. remediation skills
   3. leading a discussion

o. opportunities to work with "teacher teams" in planning and executing broad approaches to pupil learning

p. opportunities for visitation and observation in areas of the city not regarded as disadvantaged

q. opportunity to utilize talents of trainee to enrich curriculum, develop new instructional materials.

SECTION FIVE: MODIFICATIONS IN SCHOOL SYSTEMS

The Task Force felt that it was important to indicate some of the modifications in the organization, administration, and curriculum of school systems that were "implied" in the proposed changes in teacher education. The following suggestions and recommendations will illustrate some possible modifications:

1. The "size" of the school needs to be reduced. Obviously, except in the instance of construction of a new building, this is feasible only by rearrangement and reclassification of personnel. Reasonably self-contained units containing 175-350 children and corps of from 5-10 certificated teachers should exist within present schools. A coordinator (or assistant principal) would be attached to each unit within a school and would be charged with the responsibility of instructional inspiration and leadership.

2. The purview of the school should be expanded to include "pre-school" children from the ages of about 2½ years. Deprivation is not only cumulative, but multiplicative.

3. As a result of the creation of smaller organizational units, complete non-grading from pre-school through high school is regarded as being more feasible. Non-graded units may or may not be divided into the following sub-groups: pre-school, primary, intermediate, junior high and senior high.

4. The system of evaluating disadvantaged children need to be radically altered, not to minimize competition but to minimize the superimposition of the teacher's judgemental concern.

5. Groups of teachers should jointly assume responsibility for a particular student sub-group within the school. These groups should range in size from five to ten certificated teachers plus other community and school helpers. It may be advisable for some members of the teaching group to remain with the same students for up to a three-year period. Using such teacher groups gives considerable flexibility to the program within a building. Such usage also provides for superior supervision and helps to maintain continuity of staff and student-teacher relationships. The resulting cross-checking of professional behaviors might well improve instruction.

6. Teachers in disadvantaged areas are often overburdened. In addition to the use of student teacher aides, assistants, etc., consideration should be given to the employment of lay teachers aides to assist in yard and hall supervision, clerical matters, etc.

7. Special health and community service centers should be placed in each school.

8. The school day should be lengthened considerably to serve both children (tutorials, social clubs, study space) and adults. (Activities should be devised to improve the educational expectation level of adults toward the idea of children finishing school.

9. Greater numbers of school social workers should be employed.

10. Principals and supervisors need to be trained along the same lines as the teachers. It is important to provide supervision by a qualified person who does not rate teachers.

11. A "diagnosis clinician" and a "programmer" should be in each school for the purpose of focusing for teachers specific ways of learning about individuals and their problems and helping teachers to restructure their daily educational programs.

12. De-emphasis on textbook reliance should be stressed. Use of community resources, audio-visual materials, programmed materials, etc. should be expanded. Motor activities are vital to the learning style of a disadvantaged pupil.

13. Plans for compensatory education should be continuous from preschool through high school. An exchange of personnel among the various (non-graded) levels should be planned, with particular reference to having member-teachers from pre-school, primary, intermediate, junior high, and senior high. It takes a long time to produce a juvenile delinquent; it takes a long time to 'unproduce' him!

14. Curriculum materials should be devised to reflect more than they do now the wealth of the disadvantaged culture. These materials should provide more direct experiences followed by abstract analysis, or reconstruction of the experiences. Flexibility in school scheduling is required.

15. The school year should be expanded beyond the traditional [illegible] months to provide time for a radically enriched program. Special summer school programs should be amplified.

16. Many ways need to be explored to increase the prestige and income of teachers of the disadvantaged so that teachers-in-training can more easily be lured in the direction of the inner city.

SECTION SIX: THE RECRUITMENT AND RETENTION OF TEACHERS FOR THE DISADVANTAGED

The Task Force could devote only cursory attention to a matter of the utmost importance, namely, the problem of recruiting and retaining superior teachers to work with the disadvantaged. In his paper, Dr. Rivlin envisaged procedures for the selection and retention of prospective teachers different from those currently employed.

School systems and participating institutions of higher education must make concerted efforts to grant recognition to all who are involved in special programs such as the proposed training centers. Cooperating teachers, college or university trainees, administrators, supervisors, as well as the public school students and the community at large must be made to feel that they are participating in a cooperative endeavor of great importance and value. The creation of a climate of mutual respect and dedication to a set of common goals must be achieved.

The great success of the Peace Corps and the increased participation of socially conscious young people in all phases of public life is encouraging. There appears to be a reservoir of idealistic young people awaiting the call to perform useful social services. Large city school systems must begin to tap this group in ever increasing numbers to serve as teachers in disadvantaged areas. Perhaps some vital lessons can be learned from the Peace Corps by establishing group identity and an esprit de corps. Each city in the program, or perhaps the cities collectively, might consider the formation of a "Depressed Area Teaching Corps."

CHAPTER IV

REPORT OF TASK FORCE THREE

Task Force Three of the School-University Teacher Education Project was charged with the identification of criteria against which the success of the curricular content and experiences developed by Task Forces One and Two could be measured. The Task Force met from November 4-6, 1964. The roster of participants is listed below.

The Planning Committee thought that the limited time available for the Task Force to attempt to fulfill its complex mandate could best be utilized by having four papers prepared prior to the meeting. It was considered essential to start the session with the discussion of several papers which analyzed Task Force One's report as any evaluation efforts would have to be focused upon measurable teacher behaviors. Dr. Richard Turner of Indiana University and Dr. Harold Mitzel of Pennsylvania State University prepared these critiques which were attempts to operationalize the preliminary draft of the Task Force One statement concerning teacher behaviors. The Turner and Mitzel critiques helped Task Force Three to determine its measurement task. The critiques also provided helpful insights and some direction as to where Task Force Three could and should go in seeking to find a way to measure Task Force One's descriptions of desired teacher behaviors. The Turner and Mitzel critiques can be found as Appendices B and C respectively.

The Planning Committee thought it would be very helpful to have at hand a catalogue of the existing measurement instruments. Two papers were prepared which annotate and analyze existing measurement instruments. A paper cataloguing and reviewing existing techniques for the objective analysis of classroom behavior was prepared by Dr. Karl Openshaw of Ohio State

University. A paper listing and reviewing the measurement instruments that are available from the behavioral sciences which might be used to evaluate educational outcomes of the experimental programs was prepared by Dr. Bertram Masia of the University of Chicago. Dr. Openshaw and Dr. Masia were both present at the Task Force Three session and their knowledge of the available instrumentation was very helpful and timesaving to the participants. Mention of a particular instrument in the Task Force Report does not necessarily imply endorsement by either the Task Force members or the consultants. Specific instruments are mentioned for illustrative purposes only. There was neither time nor had the Task Force the responsibility of evaluating the comparative merits of the host of measurement instruments discussed at the meeting or in the Openshaw and Masia papers.

It was apparent that Task Force Three could not be expected to complete its very complex assignment in the limited time available. As a result of this fact, it was necessary to reassemble a small group of participants for a short period of time to attempt to organize and synthesize some ideas which the entire Task Force did not have time to develop. Dr. Norman D. Bowers of Northwestern University, Dr. Bertram Masia of the University of Chicago and Dr. Donald Medley of the City University of New York performed this function and their work is presented in a paper which follows the Task Force Three report.

Special thanks are due to Dr. Medley for his assistance in the editing of Task Force Three's report.

SCHOOL-UNIVERSITY TEACHER EDUCATION PROJECT

TASK FORCE THREE

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INSTRUMENTATION FOR THE CATEGORIZATION OF TEACHER BEHAVIOR IN CLASSROOMS

Karl Openshaw, Ohio State University

Some general observations concerning the more detailed abstracts* included in this paper seem warranted at the outset.

1. Each of the studies reported upon has an implied theory of teaching, but this theory is seldom given in explicit terms. Therefore, an analysis of the assumptions that underlie each of the studies is necessary in order that an understanding of this implied theory can be deduced.

2. It is becoming increasingly clear as more work is completed in the area of teacher behavior that it is impossible to judge a teacher's ability and effectiveness merely by watching him teach.

3. Most of the studies completed thus far do not validate an instrument for observation per se, but they do demonstrate that observers can be trained to a high degree of reliability to recognize certain teaching behaviors included in the system of categories.

4. During the past several years a number of rating scales intended to provide a measure of teaching effectiveness have been developed. These rating scales are not included since their use for other than research purposes appears to have yielded uniformily negative results.

5. It is impossible to integrate the several efforts made at classifying teacher behaviors into any one adequate system since each begins with a unique set of assumptions, uses different procedures for data collection, and attempts to describe different facets of teaching behavior.

6. All of the efforts thus far reflect only what teachers are like at the time data were collected. Since conditions varied under which data were collected, it would be unwise to make generalizations at this time. Generally speaking, the findings reported by the various researchers do not indicate what ought to be, nor do they attempt to postulate what is best or true of all teachers under all conditions.

7. Results of the studies abstracted cannot be applied to individual cases since the findings reported considered teachers as a group and presented results for groups rather than individuals.

*The abstracts included in this paper were made by Dr. Openshaw. Obviously, the studies discussed are not his original work, but the interpretations and materials included in this paper are a product of his analysis of the research of others.

8. The investigations reported were descriptive in nature and do not, as a general rule, attempt to provide reasons for or explanations of teaching behaviors.

The studies included in this report should in no way be interpreted as having application to the problems of educating the culturally disadvantaged student. None of the data were collected in "inner city" schools. Therefore, caution must be exercised as one develops conceptions about describable teacher behaviors for these students, as descriptions of teaching behaviors in schools of this type are not available at the present.

Systems for the classification of teacher behavior developed thus far can be divided roughly into three categories: (1) those dealing with psychological climate or classroom interaction; (2) those dealing with measurement of classroom behavior per se, describing quantitatively what goes on in the classroom; and (3) those dealing with substantive or cognitive objectives through analysis of teacher behaviors. There is some overlap among the studies reported here, but they can be divided essentially as follows:

1. Psychological climate or classroom interaction--
   Flanders, Hughes, Miller, Thelen, Withall,
2. Quantitative descriptions--
   Medley and Mitzel, Travers,
3. Cognitive objectives--
   Bellack, Smith, Wright and Proctor.

Most of the studies of psychological climate can be traced to the work of Harold Anderson and his colleagues in the early 1940's in which a definition of "classroom climate" was made in terms of the dominative or integrative acts of the teacher. A short time after this, Lippitt and White conducted laboratory experiments in democratic, authoritarian, and laissez-faire leadership in school-related group activities. Following the establishment of the social-psychological climate indices, Withall demonstrated that it was possible to classify teachers' verbal statements in categories very similar to Anderson's dominative-integrative index. Withall's categories were adapted by several of those investigators who analyzed psychological climate. For this reason the Withall categories are included. It should be pointed out that this system of classification was not intended to be used as a means of recording classroom behavior per se but was developed as a method of coding transcripts of sound recordings of teacher behaviors.

For the purpose of viewing the spontaneous interaction between teacher and student and the interplay between different acts of the teacher and the reactions of types of students, the Flanders study is most useful. It does not, however, provide a breakdown that might be essential for understanding specific behaviors. The instrument is relatively easy to use and, indeed, is the most widely used of the systems now available. One of the more significant findings of this study is that students who achieved the most were exposed to flexible patterns of teaching.

Before an observer could use the instruments developed by Hughes, a considerable amount of training would be essential. The findings of her study represent some interesting hypotheses that require further investigation before their validity can be determined. Some of the results derived from this investigation are in direct opposition to the findings of other researchers, i.e., Medley and Mitzel. A most helpful result of this work is found in the model of "good teaching" developed as a result of this investigation. This model is as follows:

	Per cent of Total Teacher Behavior
Controlling behaviors	20-40%
Imposition	1- 3%
Facilitating behaviors	5-15%
Content development behaviors	20-40%
Personal response behavior	8-20%
Positive affectivity behavior	10-20%
Negative affectivity behavior	3-10%

Miller's study was devised to test a theory of instruction as well as to develop an instrument for classification. In this regard it has greater long-range value than perhaps any of the other studies. It is one of the first attempts to develop and state in explicit terms a theory of teaching that was then subjected to an empirical validation. The theory failed to predict student achievement either in mastery of facts or in higher understanding, but it did predict results in levels of pupil understanding during discussion. In contrast to Flanders' findings, the descriptive-responsive dimension had no real effect upon content mastery or deeper meaning as measured by achievement tests. However, part of the theory of instruction was confirmed, and this represents real progress. The study also raises some important questions regarding long-standing practices in teaching.

1. What is the usefulness of discussion as a learning experience?
2. What is gained and lost when pupil time, which could otherwise be used in reading or individual study, is used for classroom discussion?
3. Do pupils who talk the most learn the most?
4. What is the optimal degree of responsive and/or directive behavior in teaching in order that consequences to pupils can be more favorable than in this study?

Thelen's categories were developed more to test a "hunch" about the role of the teacher in making decisions about grouping students than they were to describe teaching behavior itself. The study was included because it is of a somewhat different nature than any of the others.

The work of Medley and Mitzel centered essentially upon the development of scales for recording data about teacher behavior. This work has spanned many years and has resulted in the development of OScAR, Observation Schedule and Record. The instrument is unique in that it was designed for use by a single observer visiting a classroom by himself. It is a reliable measure of relatively global behaviors. The various scales of OScAR are rather complex, and the weighting given to the various dimensions of teacher behavior are rather complicated. Therefore, extensive study and training would be necessary before a single observer could use the scales effectively.

The Travers study is a rather complex undertaking in which several instruments were used. A number of these instruments were developed by other researchers for other purposes. While in general the investigation was carefully executed, the systems of classification described in this paper received no systematic tryout prior to their administration in this study. The investigators had difficulty in achieving inter-observer agreement in scoring teacher behaviors with the instrument. It is assumed by them that the scoring techniques were inadequate. This condition makes it questionable whether the system can be used by others at this time. An important conclusion reached is that if one desires to predict typical performance of a teacher under stimulus conditions that are familiar to him, the best prediction will result from tests that ask him, in effect, how he behaves in such situations. This conclusion was also reached by Thelen. Another important conclusion is that the perceptions of the pupils studied differed considerably from those of the adult observers in the classrooms.

The Smith and Meux work was the first attempt at analysis of the logical aspects of discourse by the students and teachers. As such, it represents a monumental undertaking, although the study reported here is but a first step toward the development of a theory of classroom instruction based on logical analysis. An undergirding rationale for the systems of classification was not made explicit by the investigators. This limitation undoubtedly affected the validity of the instruments developed.

Bellack and Davitz engaged in a descriptive study of the teaching process based on the analysis of the linguistic behavior of teachers and students. The "Substantive-Logical and "Instructional-Logical" categories of the instrument developed were adaptations of Smith and Meux's work. Revision and refinement of some preconceived concepts of the uses of language resulted from the analysis of empirical data. These sources form the undergirding rationale for the systems of classification in this study.

The greatest potential value of the work of Wright and Proctor lies in its extension. As more is learned about the various categories of teacher behavior, as the dimensions of the categories developed can be simplified, and as more explicit theories of instruction are evolved, this study will undoubtedly be hailed as a monumental effort. The instrument of this study is clearly subject-matter oriented. While it would be presumptious to cast doubts on Wright's mathematical competence, it must be pointed out that the validity of the mathematics content used in this study was not established. Because the major focus of this work was instrument validation, a number of possible interesting hypotheses were ignored in this study. The work appears to be considerably less objective than, for example, Flanders' Interaction Analysis as the investigators attempted to infer mental processes from overt verbal behaviors. This leads one to wonder whether the reliability checks on the instrument were a function of the training process since it is difficult to imagine a large group of observers being able to classify such processes as analyzing and generalizing with the high degree of reliability reported. A very high level of training and competence in both mathematics and in process would be required of the observer before he could use this instrument.

THE DEVELOPMENT OF A TECHNIQUE FOR THE MEASUREMENT OF SOCIAL-EMOTIONAL CLIMATE IN CLASSROOMS

John G. Withall

Journal of Experimental Education, 1949:17

Much of the recent research effort in the development of instruments for classroom observation utilizes basic conceptions developed by Withall in the late 40's. It seems useful, therefore, to include his categories of teacher behavior, but since other investigators have greatly expanded Withall's original work, his full study is not presented.

Category 1. Learner-supportive statements express agreement with ideas, actions or opinions of the learner, or commend and reassure him. The dominant intent of these statements or questions is to praise, encourage or bolster the learner. Statements of this kind frequently take the form of a single word response such as, "Right," "Yes," or "Good."

Category 2. Acceptant or clarifying statements show considerable understanding by the teacher or restate clearly and succinctly in the teacher's words the ideational or emotional content of the learner's statements. The dominant intent of these statements is to help the learner gain insight. Statements of this kind are rather infrequent, but the following is an example, "In other words you think that if we decide to go back again we should plan to spend the entire day."

Category 3. Problem-structuring statements offer facts, ideas, or opinions to the learner about phenomena or procedures in a non-threatening, objective manner. The dominant intent of these statements is to sustain the learner by facilitating his problem-solving activities. A good example of this kind of statement is the following, "What is special about twins? Two brothers are born on the same day one year apart, are they twins?"

Category 4. Neutral statements evidence no supportive intent, being neither teacher-centered, learner-centered, nor problem-centered. The dominant intent of these statements is to facilitate the administrative and procedural detail of class management. Examples of neutral statements are the following, "Children, there will be no movie today, since our school projector is broken." "Who is going to march in the St. Patrick's Day parade tomorrow?"

Category 5. Directive statements advise the learner regarding a course of action and offer him no choice or severly limit his choices. The dominant intent of these responses is to have the learner take up the teacher's viewpoint and pursue a particular course of action. An example of a directive statement is the following, "If there are any words which you do not know, put them down in your notebooks and we will go over them tomorrow."

Category 6. Reproving, disapproving or disparaging statements express complete or partial disapproval of the ideas, behavior, or personal characteristics of the learner. The dominant intent of these statements is to admonish the learner for unacceptable behavior; to instruct the learner in societal values as interpreted by the teacher; or to impress upon the learner that he has failed to reach certain standards of excellence. A good example of mild reproof is the following, "Children, you think you are whispering, but you are not." Stronger reproof is found in the statement, "You knew that yesterday, but now you've forgotten it completely."

Category 7. Teacher-supportive statements are those in which the teacher refers to herself, expressing a defensive attitude, or refers to her present or past interests, activities, or possessions in order to reassure herself and confirm her position. The dominant intent of these teacher responses is to assert, defend, or justify the teacher. An example of this type of statement is the following, "You must say 'Excuse me' when you interrupt me; I say 'Excuse me' when I interrupt you. Now we will go on without any interruptions."

TEACHER INFLUENCE, PUPIL ATTITUDES AND ACHIEVEMENT:
STUDIES IN INTERACTION ANALYSIS

Ned A. Flanders, University of Minnesota (Mimeographed)
Minneapolis, November 30, 1960

Background of the Study

This two-year project was a part of a larger research program. In 1954-56 work was initiated at Minnesota to improve systems for analyzing the spontaneous acts of the classroom teacher, to identify patterns of acts that seemed most influential, and to study relationships between these patterns and the attitudes of students. In 1957 the early studies were repeated in New Zealand with the aid of a Fulbright Research Scholarship. The 1958-60 project provided resources to include measures of student achievement, where before only attitudes had been studied. This study was concerned primarily with the spontaneous interaction between teacher and student, the interplay between different acts of the teacher and the reactions of different types of students.

Purposes of the Study

To refine classroom interaction analysis and to validate such analysis as a tool for assessing teacher influence. (Prior research had developed basic systems for describing classroom interaction.)

To explore teacher flexibility and establish normative expectations for teacher influence.

To find out if students show evidence of higher achievement when patterns of teacher influence create superior attitudes toward schoolwork.

To test the validity of the following hypotheses:

1. Direct teacher influence restricts learning when a student's perception of the goal is confused and ambiguous.

1:1. That direct influence, when goals are ambiguous increases dependent behavior

1:2. That dependent-prone students will be more sensitive to changes in direct and indirect patterns of influence than are students who score low on a dependence-proneness test

2. Direct teacher influence increases learning when a student's perception of the goal is clear and acceptable.

3. Indirect teacher influence increases learning when a student's perception of the goal is confused and ambiguous.

Definition of Terms

Direct Influence consists of stating the teacher's own opinions or ideas, directing the pupil's action, criticizing his behavior, or justifying the teacher's authority or use of that authority.

Indirect Influence consists of soliciting the opinions or ideas of the pupils, applying or enlarging on the opinions or ideas of the pupils, praising or encouraging the participation of pupils, or clarifying and accepting the feelings of pupils.

Assumptions of the Study

1. An analysis of the teacher's verbal behavior is an adequate sample of his total behavior.

2. The most useful information about freedom of action can be inferred from what the teacher says.

3. It is possible to establish procedures that will quantify the qualitative aspects of spontaneous teacher influence.

4. An observer can record fairly accurately each (teacher) statement as it occurs. After a period of time the resulting frequency distribution within categories represents the quality of teacher influence.

5. Nearly all of the teacher's influence is expressed through verbal

statements.

6. Different types of statements by the teacher will either increase or decrease the number of alternative actions available to the student.

7. How much teachers talk and what they say determines the reactions of the students.

8. A student will benefit most from problem-solving experiences when he works at the lowest level of dependence on the teacher that both he and the teacher can tolerate.

9. Teachers can control their verbal participation in the classrooms.

Figure 3

CATEGORIES FOR INTERACTION ANALYSIS

Minnesota, 1959

TEACHER TALK	INDIRECT INFLUENCE	1.* ACCEPTS FEELING: accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included.
		2.* PRAISES OR ENCOURAGES: praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying, "um hm?" or "go on" are included.
		3.* ACCEPTS OR USES IDEAS OF STUDENT: clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to category five.
		4.* ASKS QUESTIONS: asking a question about content or procedure with the intent that a student answer.
	DIRECT INFLUENCE	5.* LECTURING: giving facts or opinions about content or procedure, expressing his own ideas, asking rhetorical questions.
		6.* GIVING DIRECTIONS: directions, commands, or orders to which a student is expected to comply.
		7.* CRITICIZING OR JUSTIFYING AUTHORITY: statements intended to change student behavior from nonacceptable to acceptable pattern, bawling someone out, stating why the teacher is doing what he is doing, extreme self-reference.
STUDENT TALK		8.* STUDENT TALK--RESPONSE: talk by students in response to teacher. Teacher initiates the contact or solicits student statement.
		9.* STUDENT TALK--INITIATION: talk by students which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.
		10.* SILENCE OR CONFUSION: Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.

*There is NO scale implied by these numbers. Each number is classificatory, it designates a particular kind of communication event. To write these numbers down during observation is to enumerate, not to judge a position on a scale.

Overview of the Findings

Taking the entire project into consideration, the hypotheses and theories stated were well supported. In no instances were there significant outcomes that reject any of the theoretical propositions of the study.

The hypothesis that direct influence when goals are ambiguous produces less learning was supported by analyses of the data in both mathematics and social studies. The hypothesis that direct influence increases learning when goals are clear was confirmed by an analysis of the indirect teachers during the latter stages of their two-week units of study. The hypothesis that indirect influence increases learning when goals are ambiguous was confirmed.

Some of the most interesting analyses are concerned with the flexibility of teacher influence. The evidence indicates that the theoretical speculations about flexibility are essentially correct. The study also shows that on the whole, indirect influence patterns stimulate more achievement than direct, regardless of the student's ability.

There is almost no evidence in this study that above average, average, and below average students respond differently to direct and indirect patterns of teacher influence. In the classrooms of teachers using indirect influence, students have more positive attitudes toward the teacher, the class activities, and the material being learned.

Perhaps the conclusion that needs to be emphasized the most is that the students who achieved the most and had significantly higher scores on the revised classroom attitude instrument were in classes that were exposed to _flexible_ patterns of teacher influence. This flexible pattern included periods of predominantly direct influence as well as other periods of predominantly indirect influence. This characteristic flexibility was associated with a higher overall I/D average. The data show that a sustained above average pattern of direct influence restricts learning and produces less desirable attitudes. It is obvious that as teacher influence deviates from this narrow pattern, the overall I/D must increase. These deviations are what the investigators have called flexibility.

Implications of the Research

The most important implication concerns the timing of direct and indirect influence. The results of this study are contrary to accepted practice in this regard in that nearly everyone agrees that immediate action should be taken in a situation where learning goals are ambiguous and pupils do not know what to do. The study suggests, however, that an indirect approach is most productive. It provides the teacher with more information about student perceptions and results in the students developing more responsibility for diagnosing their difficulties and suggesting a plan of action.

A second implication is that there are major differences between teachers whose students learned most and those whose students learned least. Pupils who learned most were in classrooms where the teacher frequently accepted, clarified, and made use of the ideas and feelings of students. Associated with this is less need for directions and criticisms. Failure to clarify and use student ideas places the teacher in a position of having to give more direction, which then results in greater dependence of the students on the teacher. Data show that higher standards can be achieved not by telling students what to do in some sort of misguided "get tough" policy but by asking questions and then using student ideas, perceptions and reactions to build toward greater self direction, student responsibility, and understanding.

Third, variability in teacher influence, or what is called flexibility, is associated with teachers whose students learned the most. Further, the better teachers were less alike and the poorer teachers were more alike. This suggests that creative teaching is an expression of a particular teacher's personality, working with a particular group of students, in a particular subject-matter field.

It was found that direct teachers had fewer ways of working with students and that they could provide only a limited number of roles. On the other hand, the indirect teachers were capable of providing many different roles and shifted their roles in a manner consistent with the demands for learning of students.

An implication for teacher preparation is found in the notion that teachers should be exposed to some type of human relations training that will help them to attain these objectives. Teachers should be trained in: (1) the ability to use the social skills of accepting, clarifying, and using the ideas of students; (2) knowledge of those acts of influence that restrict student reactions and those that expand them; (3) understanding of a theory of instruction that the teacher can use to control his own behavior as he guides classroom communication.

The system of interaction analysis used in the study is content free. The investigators are optimistic about its value. It is noted, however, that the system is concerned primarily with skills of class-room management expressed through verbal communication. It is costly, cumbersome, and requires some form of automation in collecting, tabulating, and analyzing the data. It is not yet a finished research tool.

DEVELOPMENT OF THE MEANS FOR THE ASSESSMENT OF THE QUALITY OF TEACHING IN ELEMENTARY SCHOOLS

Marie M. Hughes & Associates, University of Utah
Salt Lake City, 1959

Background of the Study

The study grew out of The Utah State Merit Study Committee's investigation of problems involved in the merit rating of teachers. Dr. Hughes served as a consultant to a group in the Provo City Schools who attempted to develop a description and definition of teaching. Two years were spent in a study of teacher-recorded and observer-recorded reports of teacher-learner interactive situations in kindergarten through high school. From this analysis was developed the code for the analysis of teaching, which defined the functions performed by the teacher.

The present study is concerned directly with the process of teaching as interaction in the classroom. The basic data are classroom records of teacher-pupil interaction.

Purposes of the Study

This study attempted to answer these questions:

1. What differences in pattern of teacher acts (functions) may be found among elementary teachers judged as good teachers?

2. What teaching acts are dominant or statistically more frequent among good teachers than among those less adequate?

3. What differences in teaching behavior exist among selected teaching situations, i.e., reading, activity or work period, or a developmental lesson in social studies or arithmetic?

4. What teaching acts or combination of teaching acts appear to

stimulate use of higher mental processes, personal involvement, and creativity on the part of the children?

5. How do children view the teacher-learner situation?

6. What is good teaching? What is the rationale that supports the model of good teaching?

Definition of Terms

For the purposes of the Provo Study teaching was defined as "interaction in the teacher-learner situation of the classroom and school where the adult holds the position of teacher in relationship to the child."

The function is the unit of analysis used in this study. The term is not specifically defined beyond the synonymous use of the word, "act." It is determined in relationship to the total situation, identified in a given unit of verbal or non-verbal behavior as it is directed to a particular child, group, or class, and counted as an act in the quantification of the record. A function is not necessarily congruent with a specific unit of verbal behavior, i.e., phrase, sentence, etc.

Interaction is not specifically defined, but includes all verbal and non-verbal activity within the classroom. For the purposes of this study, only the interactions in which a teacher was involved (with child, group, or class) were included.

Assumptions of the Study

1. The functions a teacher performs are separate and definable within the context of the given situation.

2. Within a resonable length and number of observations of teacher behavior in the classroom it is possible to observe a pattern of functions that will typify the total patterns of behavior for the individual teacher.

3. Regardless of grade level or subject-matter content, the same functions are to some extent performed and identifiable.

4. There are different levels of interaction in the classroom discernable in terms of the focus of the teacher's attention at a given time.

5. It is possible to assess quality of teaching by observing teacher behavior in the classroom teaching situation.

6. There are qualitative levels of interaction in the classroom discernable in terms of the child's reception and perception of the teaching act.

7. The quality of teaching may not be assessed completely without taking into account the child's perception of the purpose of the act of the teacher.

8. The child's concept of the teacher's act is a corollary to be considered in assessing the quality of teaching.

System of Classification

I. Controlling - Managing of Classroom

  A. Structure - designate object of attention

    *1. Open--decision is pupil's

    2. Closed--decision is teacher's

    3. Intervention--responds to question by asking another question further exposing child's inadequacy

    4. Sequential--not illustrated

    5. Orientation--not illustrated

    *6. Ongoing--"What else?" no designated response

      Public criteria--making overt the reason for request, specific permission, direction; based on situational factors, societal demands, values and personal needs, and competencies of the individual or group

  B. Regulate--designate who is to do something

    *1. Open--decision is pupil's

2. Closed--decision is teacher's
3. Global--not illustrated
4. Routine--predetermined procedure

*5. Neutral--randomized, systematic order outside the decision of teacher

6. Sequential--not illustrated

*7. Direction--because of location of student

Public criteria

C. Standard Set--request answer in set way
   1. Recall of learned facts
   2. Repetition of teacher's desired response
   3. Repetition of response developed by group
   4. Universal--adherence to universally accepted criteria and forms (social rules)

D. Judge--decision in altercation or conflict of interest
   1. Direction--not illustrated
   2. Punish--not illustrated
   3. Turn back--let child judge by questioning
   4. Just--not illustrated

II. Imposition - teacher projection into situation

A. Regulate Self--teacher regulation of minor household chores

B. Informed Appraisal--give opinion and value statements without child knowledge of need. (You ought to)

C. Moralize--teacher's abstract values or cultural cliches and truisms

D. Teacher Estimate of Need--doing specific act for child without child's request

E. Inform--giving information outside the "on-goingness" of the situation

III. Facilitating - helping movement of activity (content) already underway

- A. Checking--neutral from teacher's view
    - 1. Information--unknown to teacher
    - 2. Routine--established functions check
    - 3. Involvement--rhetorical questions

IV. Develop Content - responsiveness to the data placed in the situation by the children

- A. Resource--answering questions routine or child initiated
- B. Clarify--repeating child's response, elaborating or requesting opinion and attitude of child
- C. Stimulate--suggest idea or alternative, leave initiative to child
- D. Evaluate--must be explicit in terms of content
    - With discrimination--gives reason
- E. Structure turnback--express confidence in child rephrasing question for child's self-answer
- F. Content--Agree--straight repetition of child's answer

V. Serve As Response - express empathy and concern

- A. Meets request--grants child request
- B. Interprets--makes reality applicable to individual
- C. Clarify personal problems or experiences
- D. Acknowledge Teacher Mistakes when corrected by child

VI. Positive Affectivity

- A. Support
    - Stereotype--good, fine, all right
    - Specific--praise, recognition and commendation
- B. Solicitous--general offer of help, leaving acceptance to child
- C. Encourage--indication that end result will be all right
- D. Does for Personal--not illustrated

VII. Negative Affectivity

A. Admonish--suggestion of proper behavior before child can act

*B. Negative Response Personal--refusal of request

*C. Reprimand--direct request or command to change behavior

*D. Verbal Futuristic--"brush-off" indicative of indefinite future acceptance

Public criteria

E. Accusations--direct or inferred

F. Ignore--failure to respond at all to request or suggestion

G. Threat--not illustrated

*Areas in which teacher may act as mediator of the culture. In this role, the teacher performs functions of Regulate-Direction, Standard-Set, and Reprimand. These functions require the child to behave in a given way. When the teacher makes the reasons for these requirements public and such reasons are rooted in situational factors and in the conventions and rules of the larger society, the teacher is said to be acting in the role of mediator of the culture.

Overview of Findings

1. The code is usable for research purposes and for in-service training, but it is not a finished product.

2. Most teachers rely heavily on dominative functions in the teaching act, particularly controlling functions.

3. The same range of performance was discovered among the "judged-good" teachers as among representative teachers of one school.

4. A comparison of the positive and negative functions show that all teachers were more positive than negative in their teaching.

5. There were significant differences between the eleven primary teachers and the eleven intermediate grade teachers. The primary teachers were more controlling. They also performed a larger number of teaching functions than the intermediate grade teachers.

6. There were significant differences among the situations relative to content-reading, social studies, activity, and arithmetic. In general, the activity period was most differentiated from the others.

7. Teachers worked with individual children and smaller groups more than with the large group in an undifferentiated manner.

8. The major functions performed in the classroom by the teachers were those of control. For most teachers the acts of control were well over 40 per cent of all acts recorded for them. For one-third of the 129 records, the acts of control were from 50 to 70 per cent of the total acts. Only 13 per cent of the total number of records studied had controlling acts of 30 per cent or less.

9. The amount of control exercised for the purpose of maintaining proper pupil behavior (discipline) was more than adequate in all rooms but four. For these rooms it was not the lack of numbers in the controlling acts but the quality or nature of the control.

10. The control of the teacher was most prominent and demanding over the minutia of what the child would study or give his attention to, and exactly how he would answer. For much of the time, the what he was to answer and how he was to answer were predetermined by the teacher.

11. The most common and nearly exclusive mental activity invited by the teacher under such conditions of control was that of simple memory and recall.

12. The mental activities of children associated with choice, exploration of ideas, analysis of personal experience, problem-solving, and spontaneous reaction to the content under consideration were seldom found. When they appeared they were most often cut short, ignored, or in some other way unaccepted by the teacher.

13. The functions of Controlling, Imposition, and Negative Affectivity were added together and presented as an index of domination. Eighty per cent of the forty-one teachers studied were dominative in over 50 per cent of the total number of teaching acts they performed in the classroom.

14. The teachers, in failing to use Public Criteria and Universals, seldom performed in the role of mediator of the culture--neither in the building of values and social rules nor in relating the requirements of school to the larger society.

15. Responsiveness on the part of teachers to the replies of children in their dealing with content in the form of elaboration, generalization, summarization, and stimulation was infrequent.

16. The teacher responded to the child within the structure of content with a smaller percentage of teaching acts than might be expected. Seventy-five per cent of the records had less than 20 per cent of all teaching acts in the category, Functions That Develop Content. If children are to use mental processes other than recall and if they are to become personally involved in content, it seems reasonable to wish for more teaching acts in this category.

17. The teaching acts of responsiveness to children on a personal basis were small. Only twenty-nine of the records had 8 per cent or more of the total number of teaching acts in this category. Only one teacher had all of his records with a personal responsiveness that high.

18. Teachers were attempting pupil-teacher planning, individualized instruction, use of concrete experiences, and the use of a variety of materials; however, for the most part, their interaction with children remained controlling and directive, giving the child little opportunity for the exercise of initiative and the solving of problems. The furniture in the classrooms, the color on the walls, the illustrations in the books, and the

brightness and variety of children's clothing have all changed, as has the appearance and grooming of the teacher, but the basic pattern of teacher-child relationship has not changed.

Implications of Research

Evidence shows that the controlling functions that form the majority of teaching acts may be ameliorated. If it is agreed that amelioration of these functions is a factor in better teaching, methods of fostering the amelioration should be developed and specifically incorporated in the training of teachers.

AN INVESTIGATION OF TEACHING BEHAVIOR AND PUPIL THINKING

George L. Miller, William M. Stewart School,
University of Utah, Salt Lake City, 1964 (Mimeographed)

Background of Study

Miller's interest and work in the area of teacher behavior began several years ago when he became involved in a study of merit rating for the State of Utah. Hughes served as the consultant to the group involved in that work, and her later research was an outgrowth of that activity. Miller was involved in Hughes' original research. The present investigation continued the line of inquiry begun at that time. Whereas Hughes' study related teachers' classroom behavior to teacher variables, the research reported upon here relates teacher behavior to pupil performance as the dependent variable.

Purposes of the Study

The problem of the study was to determine if highly directive teaching was accompanied by pupil reactions less educative than when the teaching tasks were discharged through teaching more responsive to learner cues.

Related problems included an investigation of the relationships between the two classes of teaching behaviors and (1) growth in pupils' achievement in a content area and (2) the development of pupil attitudes toward the learning experience and the particular subject matter studied, it was the further problem of this research to give preliminary test to a partial theory of instruction developed by Miller.

Hypotheses of the Study

1. Pupils instructed by teaching characterized by high response will, during class discussion of content, exhibit a greater number of more relatively complex and abstract mental processes than will pupils instructed by teaching

characterized by high directiveness.

2. Pupils instructed by teaching characterized by high directiveness will score higher in content mastery of content facts than will pupils instructed by teaching characterized by high responsiveness.

3. Pupils instructed by teaching characterized by high response will score higher in mastery of deeper or higher content meanings than will pupils instructed by teaching characterized by high directiveness.

4. Pupils instructed by teaching characterized by high response will express more positive attitudes toward the study than will pupils instructed by teaching characterized by high directiveness.

System of Classification

A guiding theory of instruction was formulated by Miller from which his system of classification was then evolved. Four general and somewhat overlapping lines of investigation and speculation provided the basis for the theory and the instrument. These lines were concerned with psychological or classroom climate (Anderson, Hughes, Lippitt and White, Withall, Midley and Mitzel, Flanders, Travers, and Bellack); leadership and group dynamics, (Stogdill, Lewin, Cartwright, Gibb and Gibb, Bales, Homans, Thibaut and Kelley, and Trow); psychotherapy (Rogers, Allport, Maslow, Horney, Snygg and Combs, Freud, Riesman, Peck and Havighurst, and Schachtel); and, forms of knowledge and the thinking process (Bloom, Bruner, Klausmaier, Guilford, Wright, Taba).

The major tasks performed by a teacher are (1) to help pupils work on content or task problems and (2) to organize and maintain an appropriate classroom social order. The primary functions in performing these two tasks are (under working on content or task) providing focus, development, giving information directly, appraising effort, and (under maintaining social order) setting expectations, implementing action, appraising efforts. There is also a facilitating function that is considered to be neutral in the system of classification. The system is called The Responsive-Directive Scale.

Directive		Responsive
	WORKING ON CONTENT OR TASK	
	Providing Focus	
	(initial why)	
Structure initial without orientation or public criteria	or	Structure initial with orientation or public criteria
	(initial how)	
Closed initial structure	or	Open initial structure Structure turnback Stimulate
	Development	
Intervening structure (open or closed) Ongoing structure (open or closed)	or	Clarify reflect Clarify elaborate Clarify examine Clarify generalize Clarify summarize Clarify testing
	Giving Information Directly	
Inform	or	Resource
	Appraising Effort	
Evaluate without public criteria (positive or negative)	or	Evaluate with public criteria (positive or negative)
	MAINTAINING SOCIAL ORDER	
	Setting Expectations	
Admonish	or	Set standard, universal
Set standard teacher edict	or	Set standard, group
Verbal futuristic	or	Meets request, makes arrangements
Moralize	or	Interprets situation or feelings
	Implementing Action	
Regulate, closed, global	or	Regulate, with public criteria, open neutral
Negative response, personal	or	Meets request, routine
Inform appraisal	or	Clarify personal problem or personal experience
Ignore request	or	Does for personal
Regulate self-teacher estimate of need	or	Acknowledges teacher mistake
	Appraising Effort	
Reprimand without public criteria or with a standard of teaching edict	or	Reprimand public criteria (standard universal or group developed)
Judge, punish, direction, just	or	Judge turn back
Threat	or	Encourage
Accusative	or	Solicitous
Support, just, stereotyped teacher edict	or	Support specific, universal group developed

FACILITATING
(These are neutral)
Regulate neutral, or sequential
Checking, information, routine, involvement
Demonstrate
Clarify procedure

Measures of Teacher Behavior

Teaching behavior was measured by coding all of the remarks made by eight teachers with respect to content, while instructing seventh and eighth grade students during eighty staged lessons in American economics. The teaching was recorded on audio tape and transcribed to provide typescripts. Typescripts of the behavior were coded and scored according to the Responsive-Directive Scale.

Overview of Findings

The over-all inter-coder reliability for classifying directive teaching behaviors was 93.9 per cent.

The over-all inter-coder reliability for classifying responsive teaching behaviors was 91.9 per cent.

It was concluded that responsive teaching was more difficult to code than directive teaching.

Recording the teaching behaviors, transcribing them, and coding the typescripts was considered to be a superior method to the training of teachers to a criterion before the treatments were taught.

Teachers' fidelity to the assigned teaching models (responsive or directive) was varied. All teachers were very low in the amount of negative behavior expressed. There were no significant differences between treatment groups and no significant interaction between teacher and treatments. Measured against the fidelity with which the theory of responsive teaching was presented for experimental test, the study was only partially successful.

Hypotheses one and four of the study were confirmed. The findings were consistent across teacher and grade levels.

Hypotheses two and three were not confirmed. There were no differences with significance as great as .05 between the treatment groups in the mastery of facts by pupils. Likewise, there were no significant differences between the treatment groups in the achievement of higher understandings by pupils.

The part of the Responsive-Directive Scale dealing with content or task is a useful instrument for measuring classroom teaching. Assessing levels of understanding is a useful scale for measuring student linguistic behavior in the classroom.

TEACHABILITY GROUPING

Herbert A. Thelen, et. al., University of Chicago Center for
Advanced Study in the Behavioral Sciences, Chicago, August, 1961

Background of the Study

The question that initiated this investigation was: how can the "resources"--i.e., team teaching, closed circuit T.V., feedback panels, etc. --of teachers and students be utilized more effectively for educational purposes in the classroom.

An exploratory investigation was conducted examining the proposition that educative classroom activities could be deduced from the disciplines of inquiry and that these should be central in the school subjects. As a result of that activity, it was apparent to the investigators that there were different degrees of effectiveness from one teacher to the next, and one student to the next. The nature of teaching and learning depended, then, on the particular combination of students and teacher. Until this combination could be described, it was not possible to say under what conditions any concept of teaching method made sense. This led to the problem of "grouping" of whole classes for instructional purposes, the focus of this study.

Purposes of the Study

A first step in defining the problem of studying grouping for instruction called for a review of all published experiments of "homogeneous ability grouping" and of "normal" processes of selection such as age, grade level, administrative ease, socio-economic background, etc.

From this review, the investigators concluded that there were three major factors that seemed to have the greatest influence on the learning that resulted from bringing together a group of students and a given teacher. One is the teacher, as the most influential factor in the classroom; the second is the classroom group, with its very large array of properties all of which have something to do with learning effectiveness and none of which is devisive; and the third is the socio-educational "background" of the personnel. Each of these factors can be worked on: Effort can be expended to make the teacher a better (e.g., more inquiry- or education-oriented) teacher; a group can be selected in such a way that it maximizes his competence and hence its own learning; and the school system can be combed to find the best socio-educational milieu for each child.

This project then focused on the second of the above factors--"teachable groups." A "hunch" about the central role of the teacher in any grouping decision led to the following: ". . . Perhaps the best way to compose a class would be simply to select, for each teacher, students like those who, in his opinion, had been most successful with him in the past! This became our definition of the 'teachable' student--and we suspected that it would be a different definition for each teacher." (p. 25)

The study was undertaken to test this "hunch."

Assumptions of the Study

1. The particular combination of teacher and pupils in the classroom has significant consequences for education.

2. The educational result depends both on grouping, and on the appropriateness to the particular group of the method of teaching employed.

3. It is possible to develop and validate better instruments for the assessment of student characteristics that, when used, will result in more realistic and beneficial grouping practices.

4. As the study developed, the investigators devised the following

equation to describe their major hypothesis:

(1) Regular (Control) Style of Teaching of Each Teacher + (2) More Teachable Students Selected for Each Teacher = (3) Changed Classroom Operation, More in Line with Each Teacher's Purposes = (4) Better Educational Outcomes, as Judged by Each Teacher

Several assumptions are inherent in this equation:

1. Each teacher has an established or habitual style of teaching. (1)*
2. Each teacher does a better job of teaching some students than others. (2)*
3. Teachers can identify students "getting most and least out of class." (2)*
4. An assessment battery will show items significantly differentiating between more and less teachable students. (2)*
5. Students selected on a battery will be "similar" to the model teachable children with respect to the most salient aspects of teachability. (2)*
6. A "teachable" class should facilitate the achievement of the teacher's purposes. (3)*
7. The teacher will perceive that the class is learning more of whatever the teacher is trying to teach. (4)*

*Numbers refer to parts of the above equation.

System of Classification

The attached system of classification is just one of many devices and approaches used. This represents the major attempt at quantitatively categorizing teacher verbal behavior.

Procedures involved in the construction and validation of the various instruments used in this study were not outlined in the report of the study.

A. Summary of Categories Employed in Observation

Statements by: Teacher
Students

B. Statements addressed to: Teacher
Students
Class-as-a-whole

1. Topic of Discussion

I--idea-centered; subject matter, opinions about experiences and and ideas of phenomena outside the classroom
A--Activity-centered; instructions, work demands, rationale, reactions to learning activities
G--Group-centered; group standards, morale, organization, roles
P--Person-centered; needs, values, personality of individual qua person

2. Concern; relation to inquiry: operations

R--relationships among concepts; interpretative, explanatory
D--data, facts, quoted statements, part of culture; descriptive, remembered
S--subjective opinion; awareness of own experience; fantasy, hunch, opinion
I--impulsive, spontaneous acting out; exclamation, attack

3. Frame of Reference

P--Professional; behavior determined by reality factors; involves making of choices; inquiry-oriented
T--Technical; behavior determined by rules and prior considerations such as defined procedures, ground to be covered; achievement-oriented
S--Self-concerned, personal; behavior determined by own feelings, desire to promote and maintain personal role. Self-oriented
G--Generalized, adult; behavior is effort to socialize child within community stereotypic values of respect, tolerance, hard work, etc.

4. Emotionality

a. Fight:

T--by teacher; threatening, punitive, directed at class; affects climate
D--by teacher; defensive, usually directed at class.

b. Dependency:

S--submissive; "tell me what you want me to do"
W--weak or inadequate; "I'm weak; be sympathetic; don't hit me"

R--rules; "what is the right way; what does the book say; what is the procedure we agreed on"

c. Flight:

I--irrelevant; off the point, wandering, withdrawn, non-purposive, lost.
E--escape; tension release through changing subject, humor, adjuournment
B--breakdown; disorganized, incoherent, repetitious, fighting for time

d. Pairing:

P--with person
G--with group

e. Unidentifiable affect: A

f. Usefulness of humor: **, +, -, --

Overview of Findings (Quoted from study)

Our thirteen teachers tend, on the average, to make use of preparatory presentations, assignments, and class recitations, followed by preparation by the teacher for the next assignment. The students they selected as "getting most out of class" tended, on the average to be more psychologically mature than the students they selected as "getting least out of class." By psychologically mature, we mean more work-oriented, more free in the expression of emotion, more secure in the face of expressed emotion, more interactively interdependent, more autonomous, and more able to cooperate with the teacher.

Given classes composed of more "teachable" students, the teachers on the average had more orderly and manageable classes; they tended to like the students better; and they gave them better grades. The "teachable" students tended to like the teacher only slightly more than did the control students, they gained no more on achievement tests, and they tended to express a higher level of satisfaction with the activities and with the course as a whole.

They also tended to like each other better, and by and large the teachable classes had greater solidarity than did the control classes.

The hunch we started with seems to us to have been found correct: that successful grouping must take the teacher himself into account. We remain convinced that any grouping which does not in some way attempt to "fit" students and teachers together can have only accidental success.

Implications of Findings

1. Some percentage of the students in all schools will require special personnel arrangements.

2. ". . . in the present state of the art the concept of dividing students into objectively-definable types presents formidable difficulties. And that even if it could be done, the problem of deducing from existing curriculum theory what ought to be done with each type is also a formidable one." (p. 226)

3. Grouping should be approached on the basis of, "what sort of student can a given teacher teach most effectively" and "what sort of teacher will br bring about most learning by a particular student."

4. There is no one "right" way to teach, if teaching is defined as a set of specific procedures. This suggests that the faculty should be heterogeneous, and each teacher should be encouraged to develop "to the hilt" his own style of teaching. (p. 229)

5. In-service activities should focus on assisting teachers to find out, "how do I teach," and then, "for whom and under what conditions is this way of teaching most appropriate."

6. Grouping is the responsibility of the teacher rather than the administrator.

7. ". . . although teachability grouping may support heterogeneity of teaching procedures, it nevertheless may tend to bias all teaching in certain ways. We consider these ways to be good, and to be deducible from sound educational theory." (p. 231)

PHASE I. IMPROVEMENT OF STUDENT TEACHING

Donald M. Medley and Harold E. Mitzel
Hunter College of the City University of New York
New York, N.Y., 1962

The work of Donald M. Medley and Harold E. Mitzel has spanned a period of nearly ten years. The review presented here is adapted from several sources and recognizes a number of revisions of their original work. It is centered essentially upon the development of what they call Observation Schedule and Record, or "OScAR", a means of quantitatively recording data regarding teacher behaviors.

Background of the Study

The original work grew out of a desire to be able to observe and record teacher behaviors objectively. It was undertaken as a part of the development of observational techniques to be used in studying the performance of beginning teachers who had graduated from the New York City municipal colleges.

Purposes of the Study

The original purposes were:

1. To determine the patterns of classroom behavior characteristic of graduates who were effective teachers.

2. To provide information which could be used as a basis for modifying teacher selection and education at the colleges.

Assumptions of the Study

1. The quantitative approach to categorization holds the greatest promise.

2. To learn about teacher behavior it is necessary to study it in the classroom proper.

3. Classroom behavior can be objectively seen and heard by a trained observer.

4. Every teacher behavior has a purpose. (conscious or unconscious)

5. A teacher's behavior is an important factor in determining pupil learning.

Development of Systems of Classification (OScAR)

The initial effort of the investigators represented an adaptation of the work of Cornell and his co-workers and of the Withall's Social-Emotional Climate Index. "OScAR" was evolved by modifying and combining items constructed by Cornell and Withall on the basis of the results of tryouts of these two techniques. It originally emphasized the emotional climate and social organization of the classroom. Through the years, "OScAR" has been modified several times, as experience has dictated, based on results of its use by the developers as well as by other investigators. The version of "OScAR" which follows was developed for use in viewing kinescopes of student teaching and recording observations in the latest study available that uses "OScAR."

Systems of Classification

OScAR KEY

I. RATED BEHAVIORS (OScAR 3e)

1. Teacher Voice-Speech

Projection-articulation	clear	(+1)	to	unclear	(-1)
Modulation	well mod.	(+1)	to	poorly mod.	(-1)
Verbal Fluency	fluent	(+1)	to	halting	(-1)

2. Teacher Movement-Expression

Movement of body	functional	(+1)	to	non-func.	(-1)
Movement of hands	functional	(+1)	to	non-func.	(-1)
Grace and posture	graceful	(+1)	to	awkward	(-1)
Confidence of facial expression	confident	(+1)	to	tense	(-1)

Variety of facial expression	varied (+1) to constricted (-1)

3. Pupil Interest-Attention

Interest-Attention of pupils	attentive (+1) to inatten. (-1)

II. TEACHER RESPONSES TO PUPIL STATEMENT (OScAR 3d)

1. Supportive	fine, very good, excellent
2. Approving	right, correct, better, good
3. Accepting	yes, uh huh, all right, I see, OK
4. Repeating	repeats statement of pupil without evaluating
5. Rejecting	teacher rejects
6. Criticizing	teacher criticizes

III. TEACHER INITIATED STATEMENTS (OScAR 3d)

1. Encouraging	teacher encourages (Keep trying, it's difficult I know, but don't give up)
2. Clarifying	teacher amplifies--clarifies--summarizes (old material)(If we accept that answer, it would mean that . . .)
3. Informational	teacher gives information (new material) (The Chisholm Trail was built in ____)
4. Directive	teacher describes procedure, directs, or orders (I have extra problems for anyone who finished those in the book)
5. Mildly Reproving	teacher gives mild reproof (You'll have to be a little more quiet)
6. Strongly Reproving	teacher gives strong reproof (Johnny, go sit in the back of the room)

IV. TEACHER QUESTIONS (OScAR 3d)

1. Problem-Structuring Simple	teacher structures a simple problem These questions require pupils to provide a name or date, to identify or give an example, or to supply a fact that has been learned.
2. Problem-Structuring Complex	teacher structures a complex problem These questions are designed to stimulate the pupils to think; they ask for reasons, call for recognition of similarities or differences, or require reconstruction or explanation.
3. Pre-framed	Question is read from notes or book or workbook; also when questions are written on board, then later read from board. NOTE: This category is NOT checked as preframed when pupils are told to read aloud from the question

in the book or are told to answer aloud a question in a book; this would be checked under PROCEDURE since teacher is telling pupil to do something.

4. Affective-Imaginative affective imaginative

V. PUPIL RELATED BEHAVIORS (OScAR 3e,f)

1. Pupil Participation

Pupil(s) demonstrate to class	+1
Pupil(s) discuss lesson material	+1
Teacher encourages comment on board work	+1

2. Pupil Interest

Teacher arouses high interest	+1
Teacher's introduction of topic achieves a high degree of pupil interest	+1
Materials elicit high degree of pupil interest	+1

3. Order-Seeking

Teacher promises "reward" for good conduct or cooperation	+1
Teacher pleads or "begs" for good conduct or cooperation	+1
Teacher shouts in anger	+1
Teacher threatens	+1
Teacher continually calls for quiet or attention	+1
Teacher speaks over pupil noise	-1

VI. TEACHER BEHAVIORS I (OScAR 3e,f)

1. Evidence of Preparation

Teacher presentation shows evidence of orderly coverage	+1
Teacher presentation shows logical development	+1
Teacher provides opportunity for correlative activity	+1
Teacher uses "own" practice exercises	+1
Teacher distributes teacher-prepared material	+1
Teacher is unfamiliar with distributed material	-1
Materials do not work properly	-1

2. Lesson Introduction Activities II

Teacher begins lesson abruptly	-1
Teacher introduces lesson	+1
Objectives indicated with specificity and detail	+1

Relates lesson to pupil needs	+1
Relates lesson to past lesson, past understandings	+1

3. Lesson Conclusion Activities

Teacher terminates lesson or activity	+1
Lesson termination is abrupt	-1
Lesson termination includes evaluation, summary and application	+1

4. Use of Board

Teacher writes clearly and with good form	+1
Teacher writes illegibly	-1
Teacher "talks to" board	-1
Teacher uses proper stance in talking to class while writing	+1
Teacher obstructs board	-1

5. Individualization of Instruction

Teacher differentiates assignments for various pupils	+1
Teacher provides for "early finishers"	+1
Teacher spends time with individual pupil	+1
Teacher does not circulate around room	-1

6. Eliciting Behaviors

Teacher calls on non-volunteers	+1
Teacher seeks additional answers to questions	+1
Teacher interrupts pupil response	-1
Teacher asks pupil to explain or amplify own statement or question	+1
Teacher asks pupil to explain or amplify or correct other pupil statement	+1
Pupils give choral response	+1

7. Command of Language

Poor speech pattern	-1
Mispronounciation	-1
Verbal mannerism	-1
Uses slang	-1
Makes grammatical error	-1
Expresses self awkwardly	-1
Uses expressive language (colorful, picturesque)	+1

VII. TEACHER BEHAVIORS II (OScAR 3e,f)

1. Creativity

Teacher uses particularly apt example	+1

Teacher uses creative device or method	+1
Teacher draws illustration from varied areas	+1
Teacher's board assignments are novel and interesting	+1
Non-distributed materials are originally or creatively used	+1
Distributed materials are original or creative	+1

2. Conceptual Teaching

Teacher offers generalization	+1
Teacher encourages pupil(s) to generalize	+1
Teacher stresses meaning of procedures, allegorisms, etc.	+1
Teacher stresses inter-relationships among facts	+1
Teacher stresses critical selective reaction to information	+1
Teacher stresses insightful relation between problem and solution	+1
Teacher provides opportunity for pupils to develop own solution	+1
Teacher's evaluation question requires demonstration of understanding	+1
Teacher seeks application calling for low order generalization	+1
Teacher seeks application calling for high order generalization	+1

3. Focus

Teacher handles irrelevant questions at length	-1
Evaluation, questions vague, unfocused	-1
Materials clearly illumine problem or topic	+1
Non-distributed materials make specialized contribution	+1
Distributed materials make specialized contribution	+1
Teacher's explanation is confused and incomplete	-1

4. Consideration

Polite, courteous	+1
Shows effort at pupil-teacher planning of lesson	+1
Shows evidence of pupil-teacher planning	+1
Teacher relates material to students' needs, interests	+1

Teacher analyzes areas of potential difficulty	+1
Teacher places work out of pupil's reach	-1
Materials cannot be seen easily	-1

Concluding Statement

The findings of latest reported research that used "OScAR 3d, 3e, and 3f" indicate clearly that the instruments yield measurements of several dimensions of student-teacher behavior along which different student teachers can be discriminated successfully.

MEASURED NEEDS OF TEACHERS AND THEIR BEHAVIOR IN THE CLASSROOM

Robert M. W. Travers, et. al.
University of Utah, Salt Lake City, 1961

Background of the Study

The general purpose of the research project was to discover variables underlying the classroom behavior of teachers. The more specific purposes were to discover the relationship between measures of the needs of teachers and related categories of teacher behavior in the classroom. The research was prompted by the fact that research on needs conducted by McClelland, Atkinson, French, and others had demonstrated that projective instruments designed for the measurement of need could be used for making predictions of behavior under controlled laboratory situations. This research was designed in order to determine whether similar devices could be used for predicting the classroom behavior of teachers under naturally occurring conditions. If such predictions were possible, then the foundation would be laid for the development of a theory of teacher behavior which might have value for planning teacher training. (p. 701)

The approach used is behavioristic rather than phenomenological, i.e., it is concerned with the behavior of teachers as it is observed. When one infers inner psychological processes as an aid to understanding or for the purpose of arriving at variables which have to be taken into account, these postulated processes must be recognized as hypothetical. They are introduced as convenient devices to help in thinking.

Purpose of the Study

"The central hypothesis upon which this entire investigation is based is that the needs of teachers are important determinants of clasroom behavior (3.06)."

Assumptions of the Study

1. Attempts to acquire knowledge about the natural phenomena occurring in the classroom, i.e., scientific knowledge about teaching behavior, will ultimately produce more profound changes in education than will studies with immediate applications.

2. All phenomena which constitute the universe of education are natural phenomena which can be studied in much the same way as other natural phenomena have been studied.

3. The classroom is regarded as a situation through which both pupils and teachers satisfy their needs. Needs of teachers may be satisfied in many different ways, some interfere with the need satisfactions of pupils and some do not.

4. Certain classes of observable events will have the property of arousing or energizing an individual in direct proportion to the strength of the appropriate need in the individual.

5. The occurrence of specified events subsequent to a given behavior will tend to increase the probability of such behavior, i.e., will serve as reinforcers.

6. Successful prediction of teacher behavior requires that relevant intervening variables be measured which are operating in the classroom situation and that there be available carefully collected data concerning the behavior of the teacher in the classroom.

7. Need structures of men and women differ.

Definitions

1. Need--The term need is a hypothetical construct having two characteristics. First, it is assumed that certain classes of observable events will have the property of arousing or energizing an individual in direct proportion to the strength of the appropriate need in the individual. Second, it is assumed that the occurence of specified events, subsequent to a given behavior, will tend to increase the probability of such behavior, i.e., will serve as reinforcers.

2. Achievement need--the individual strives to excell.

3. Affiliation need--the person seeks out the company of others.

4. Need for Control--the individual seeks to control others for the sake of controlling them.

5. Need for Recognition--(Never explicitly defined. Seen as related to but distinct from Achievement!)

Systems of Classification

The following devices were designed for appraising and recording teacher behavior in the classroom:

a. A Teacher Statements technique was adapted from one already developed by Withall (1949). This technique involves the systematic sampling of the verbal behavior of the teacher. The statements of the teacher, thus collected, are later classified into categories from which are derived scores indicating the extent to which the teacher is achievement oriented, shows affiliation and controlling behavior, and the extent to which she occupies herself with management activities. Altogether 100 statements were collected from each teacher which involved a time sample of at least two hours and at least four observation periods. The statements were collected by two independent observers each of whom made at least two separate visits to the classroom.

b. A Rating Scale was developed for recording the observers' assessment of thirty-five characteristics of the behavior of the teacher in the classroom.

Informing (academic)

Achievement	1.1	Emits information, or answers question (not including the repeating of information for reinforcement)
Achievement	1.2	Demonstrates (not including "Look," "Listen," "Watch," etc.)
Achievement	1.3	Provides cues and suggests sources of information
Achievement	1.4	Corrects (takes procedence over other categories)
Achievement	1.5	Asks question to arouse response (excluding rhetorical questions)
Achievement	1.6	Reinforces
Affiliation	1.7	Relates personal experience
Achievement	1.8	Doubtful reinforcers

Controlling

Control	2.1	Reprimands or implies reprimand (takes precedence over some other categories)
Control	2.4	Exercises control to gain recognition (sit up, pay attention)
Control	2.5	Asks class or pupil to be quiet (include reprimands of this type)

Setting of goals and standards and initiating activities (excludes games, recreations and class management)

Negative Control	3.1	Asks pupil or pupils what they want to do or permits choice
Control	3.4	Directs pupils or pupil to achieve goal or perform task (includes starting and stopping, opening books, talk louder, etc.)
Achievement	3.5	Activities related to grading, evaluating, and checking up.

Management

Management	4.1	Perform routine class management functions (roll call, milk money, change of rooms, passes out paper, etc.)
Negative Control	4.2	Delegates management function to pupil (pass out paper, be chairman of discussion, close door)
Negative Achievement	4.3	Organizes games, recreation, rest periods (non-academic)
Achievement	4.4	Reads (literary rather than informative)

Management	4.5	Seeks information (where did we stop, whose turn is it, what page were we on, whose birthday is it, etc.)
Management	4.6	Emits administrative information (includes "we haven't studied that," etc.)

Affiliation

Affiliation	5.1	Expresses affection
Affiliation	5.2	Expresses need for good social relations (includes reprimands)
Affiliation	5.4	Suggests one child help another
Affiliation	5.5	Small talk and nonacademic responses

RATING SCALES

Teacher observer________ Observer __________ Date ___________

1. Aloof	1 2 3 4 5 6 7 N	Responsive
2. Harsh		Kindly
3. Dull		Stimulating
4. Stereotyped		Original
5. Excitable		Apathetic
6. Uncertain		Confident
7. Disorganized		Systematic
8. Inflexible		Adaptable
9. Friendly to students		Disinterested
10. Much direct control		Little direct control
11. Emphasized learning		Relaxed re: learning
12. Overdramatic		Shy
13. Jokes, laughs		Serious
14. Criticizes openly		Does not criticize openly
15. Room attractive		Room unattractive
16. Praises often		No praise
17. Frequently punishes		No punishment
18. Much emotional evidence of frustration		Little emotional evidence of frustration
19. Very vigorous		Listless, quiet
20. High standards		Low standards
21. Gives much encouragement		Gives little encouragement
22. Much individualization		Little individualization
23. Functions often as source of knowledge		Functions seldom as source of knowledge
24. Delegates much authority		Delegates little authority
25. Much grouping		Little grouping
26. Spends much time working alone		Spends little time working alone
27. Very negativistic		Generally positive
28. Permits great variety of activities, noise, etc.		Activities very orderly
29. Much physical contact		Little physical contact
30. Much discussion of personal feelings		Little discussion of personal feelings
31. Very verbal	1 2 3 4 5 6 7 N	Little verbal behavior

N = Not Observed

Findings of the Study

The findings of the study, while most informative, are too numerous to summarize here. They are not necessary, however, to an understanding of the instruments used in classroom observation.

Implications of the Study

A major finding of the study is that a motive desribed as a need to control plays a central role in determining the behavior of the teacher in the classroom.

Whether teachers can be trained to avoid behavior of the persistent controlling type is questionable. Controlling behavior may reflect a well-established and early-ingrained trend in the personality and one that is not likely to be modified by training, let alone training which is primarily academic in character. There are even questions whether teacher training should even be concerned with attempts to modify the personalities of prospective teachers, for such an endeavor has hardly met with high success even among such experts as clinical psychologists and psychiatrists.

The preceding remarks must be considered as pertaining to the opinion that high control, as observed in this study, is undesirable in the classroom, a proposition which has yet to be verified by research.

The category of teacher behavior which has been described as achievement oriented lacks items of behavior related to the achieving of a standard of excellence. There is almost no trace of any statements such as "Try and do your very best," or "you will have to do this many times in life so learn to do it well," or "Everyone try and do this assignment so that he is thoroughly proud of it." Such statements which imply that there are important values to be achieved through personal effort were almost entirely absent from our data.

These facts raise two questions. One is whether children are influenced by statements which imply that there is a standard of excellence worth achieving. A clear answer cannot be given to this question, but the little data available indicates that such statements would at least have the property of arousing achievement motivation even if they did not succeed in developing it. Frequent arousal of a motive may go far toward developing it.

A STUDY OF THE LOGIC OF TEACHING

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Background of the Study

It is generally assumed that effective ways of teaching can be derived from philosophical and psychological theories. According to Smith, those who attempt to develop teaching from such an assumption overlook the fact that to apply any theory one must first understand the phenomenon to which it is to be applied. Identification and description of the dimensions of teaching behavior must be made before one can think realistically about concepts and principles relevant to its control. The study is an attempt to accomplish this task.

Purpose of the Study

The purpose of the study was to develop the means of dividing verbal teacher behavior into pedagogical units for analysis. It is analytic and descriptive in nature and concerns the molar aspects of teaching behavior--logical performances verbally executed.

Definition of Terms (Adapted from pp. 2 and 3 of study)

1. "Teaching" is assumed here to be a social phenomenon, fundamentally the same from one culture to another and from one time to another in the same culture. It has its own elements, forms, regularities, and problems. It takes place under what seems to be a relatively constant set of conditions--time limits, authority figures, student ability limits, institutional structures, etc. In its essential features it is a system of social action involving an agent, an end-in-view, a situation and two sets of factors in the

situation--one set over which the agent has no control (e.g., size of classroom and physical characteristics of pupils) and one set which the agent can modify with respect to the end-in-view (e.g., assignments and ways of asking questions). The latter set of factors constitute the means by which ends-in-view are reached. The means, in turn, consist in two types of factors: subject matter and instructional paraphernalia, and the ways of manipulating and maneuvering the subject matter and paraphernalia. The first of these we call material means and the second procedural means. The procedural means have two aspects: large-scale maneuvers which we call strategies and smaller movements, constituting tactical elements of strategies, which we call logical operations.

2. "Strategy" refers to a pattern of acts that serve to attain certain outcomes and to guard against certain others. Among the general objectives toward which a strategy may be directed are the following: to insure that certain learnings will be acquired in as brief a time as possible; to induce students to engage in an exchange of ideas; and to minimize the number of wrong responses as the student attempts to learn concepts and principles. We are just beginning a study of strategies, and our conception of them is only in the formative state.

3. "Logical operations", which are the focus of the study, mean the forms which verbal behavior takes as the teacher shapes the subject matter in the course of instruction. For example, the teacher reduces concepts to linguistic patterns called definitions; he fills in gaps between the student's experience and some new phenomenon by facts and generalizations related in a verbal pattern referred to as explanation; he rates objects, events, etc., by reference to facts and criteria related in a pattern called evaluation. If he does not engage in such operations himself, the teacher either requires

his students to do so, or more typically, the teacher and his students jointly carry on these operations through verbal exchanges.

Procedures of Study

Certain schools, subject areas, and teachers were selected for inclusion in the study.

Systems of Classification

I. Criteria for Identifying Units

A. Discourse: All of the verbal behavior occurring during a class period.

B. Utterance: The complete record of the verbal behavior of one individual at one point or another within an episode. Exclamations such as "m-m" by the teacher, where concurrent with the student's verbal behavior, do not count as utterances.

C. Episode: A unit of discourse involving a verbal exchange between at least two individuals. It passes typically through three phases: (a) an initial or opening phase, (b) a sustained or continuing phase, and (c) a terminal or closing phase.

c:1 The initial or opening phase of an episode always contains a remark or set of remarks (assertions, questions, announcements, etc.) which is called an entry.

c:11 Remarks of other types may occur within the opening phase. These may function as introductory or prefatory to the entry.

c:2 The continuing phase of an episode contains remarks launched directly by the entry, or indirectly by one or more remarks which were directly launched by the entry.

c:3 The terminal or closing phase of an episode may contain remarks designed either to supplement preceding remarks or to cut off the flow of discussion. In the absence of closing remarks, the terminus of an episode is marked only by the advent of verbal moves characteristic of the opening phase of a new episode.

II. Classification of Episodes

System was based on empirical procedure of working out categories in terms of the nature of the data recorded in classrooms.

1. The "entry" or opening phase of a "verbal move" was used as the cue to the purport of each episode.
2. The logical character of an episode was determined by reference to the sort of *response* it *demanded*.
3. Categories were based on the *ideal, not the actual, response* of the student and, therefore, apply regardless of the content with which an entry deals.
4. A scheme was devised to which individual responses to a given *class* of entries would conform if the responses were logically correct.

III. System for Classifying Entries

1.	*Defining*	to provide the meaning of terms
2.	*Describing*	to represent something by word or drawing, to tell about something
3.	*Designation*	to identify something by name--word or other symbol (example, instance)
4.	*Stating*	to state formulas, issues, rules, ideas, etc.
5.	*Reporting*	to report on what a book or document says
6.	*Substituting*	to perform a symbolic operation, usually of a mathematical nature
7.	*Evaluating*	to estimate the worth, justice, dependability, etc. of something
8.	*Opining*	to express a conclusion based on *inference* from several sources of evidence rather than to report a single fact
9.	*Classifying*	to make explicit reference to an instance or class of things or both. (Words like type, class, group)
10.	*Comparing and Contrasting*	to compare two or more things--actions, factors, objects, processes. (Words like difference, compare, correspond, same)
11.	*Conditional Inferring*	to give an *antecedent*, that is, the conditional part of a statement. *Example: When it rains* the streets are wet. ("If" statements)

12. Explaining	to give a reason to account for a fact, judgment, action (How? and Why? questions)
12.1 Mechanical	to describe the way the parts of a structure fit or work together
12.2 Causal	to give events to be accounted for and ask that information be cited to explain them
12.3 Sequent	to cite a sequence of events to account for a happening
12.4 Procedural	to describe the steps on operations by which a given result or end is attained
12.5 Teleological	to justify or account for an action, decision, or state
12.6 Normative	to mention or assume something that must be justified by citing a definition or characteristic or both
13. Directing and Managing Classroom	activity with little or no logical significance to keep classroom activities moving (assignments, examinations)

IV. Criteria for Classifying Entries

A. How Formulated

Criteria were devised by two investigators, by classifying 1400 sample entries derived from typed transcriptions of tapes.

1. The first investigator categorized a sample set of entries, putting each entry into the category deemed appropriate. This led to the formulation of some rules for classifying.
2. Upon completion by the first investigator, the rules he formulated were given to a second person who then attempted to classify by using those rules. Discussion followed and tentative criteria were modified to obviate difficulties encountered.
3. Criteria were put into semi-final form.
4. Working independently, the two then classified the entire sample of entries, compared classifications, and eventually devised the final criteria used in the study.

Conclusions of Study

1. Several distinct types of logical operations are present in teaching

behavior and these types differ in the frequency with which they occur.

2. Describing, Designating, and Explaining, in that order, are more prevalent than other teaching operations.

3. Differences may exist in the extent to which the logical operations are employed from teacher to teacher, and from (content) area to area. Answers as to what this extent is, could not be determined from the data.

THE LANGUAGE OF THE CLASSROOM

Arno A. Bellack and J. R. Davitz, with others
Institute of Psychological Research
Teachers College--Columbia University
New York, 1963

Background of the Study

The purpose of this research was to study the teaching process through analysis of the linguistic behavior of teachers and students in the classroom. It focused on language as the main instrument of communication in teaching. The approach to the study of classroom discourse was influenced by recently developed concepts in the study of language and meaning by contemporary philosophers and psychologists including Wittgenstein, Feigl, Brown, and Osgood. The abstract, theoretical concepts from these sources were adapted, revised, and modified in the course of the work with the empirical data of classroom discussion. The task was one of working out the empirical referents of existing concepts and developing new concepts to describe significant characteristics of classroom discourse for which adequate concepts were not available.

Purposes of the Study

The major task of this research was to describe patterns of linguistic behavior of teachers and students in classroom discourse. Further, it was to find out who (teacher or student) speaks, about what, how much, when, under what conditons, and with what effect. The study of the division of labor in the classroom was in terms of actual behavior or performance, rather than role expectations expressed by the participants. A subsidiary aim, viewed primarily as an exploratory phase of the general line of research, was to study linguistic variables of classroom discourse in relation to subsequent pupil learning and attitude change.

Assumptions of the Study

1. The verbal activities involved in teaching are reciprocal affairs involving both teachers and students.

2. The role played by the teacher can be adequately described only in relation to the role played by students.

3. To study the activities of teachers without also analyzing the actions of students would give a distorted and incomplete view of the teaching process.

4. The primary function of language is the communication of meaning and describing linguistic events in the classroom in terms of the meanings expressed by teachers and students is a fruitful direction for research.

5. Verbal activities in various contexts follow certain rules appropriate to the activities. Successful communication in various types of linguistic activities depends on one's understanding of the language rules that govern the use of words in these activities.

6. Teaching is governed by certain ground rules of play which guide the actions or moves made by participants.

7. Verbal actions of students and teachers can be classified in categories.

8. It is possible to distinguish learning as the outcome of teaching from the activity of teaching itself.

9. Emotional meanings can be analyzed in units parallel to units of logical and substantive analysis.

Systems of Classification

I. Content Analysis System:

1. SPEAKER: indicates source of utterance
   Teacher (T); Pupil (P); Audio-Visual Device (A)

2. TYPE OF PEDAGOGICAL MOVE: reference to function of move
   - Initiatory Moves
     - Structuring (STR): focuses, launches, sets context for subsequent behavior
     - Soliciting (SOL): directly elicits verbal, physical, or mental response; coded in terms of response expected
   - Reflexive Moves
     - Responding (RES): fulfills expectation of solicitation; bears reciprocal relation only to solicitation
     - Reacting (REA): accepts, rejects, expands, modifies; occasioned by previous move but not directly elicited; summaries or reactions to more than one previous move coded REA
     - Not Codable (NOC): function uncertain because tape is inaudible

3. SUBSTANTIVE MEANING: reference to subject matter topic

4. SUBSTANTIVE-LOGICAL MEANING: reference to cognitive process involved in dealing with the subject matter under study
   - Analytic Process: proposed use of language or established rules of logic
     - Defining-General (DEF): defining characteristics of class or term with example of items within class explicitly given
     - Defining-Denotative (DED): object referent of term
     - Defining-Connotative (DEC): defining characteristics of class or term
     - Interpreting (INT): verbal equivalent of a statement, slogan, aphorism, or proverb
   - Empirical Process: sense experience as criterion of truth
     - Fact Stating (FAC): what is, was, or will be without explanation or evaluation; account, report, description, statement of event or state of affairs.
     - Explaining (XPL): relation between objects, events, principles; conditional inference; cause-effect; explicit comparison-contrast; statement of principles, theories or laws
   - Evaluative Process: set of criteria or value system as basis for verification
     - Opining (OPN): personal values for statement of policy, judgment or evaluation of event, idea, state of affairs; direct and indirect evaluation included
     - Justifying (JUS): reasons or argument for or against opinion or judgment
     - Logical Process Not Clear (NCL): cognitive process involved not clear.

5. INSTRUCTIONAL MEANINGS: reference to factors related to classroom management

   - Assignment (ASG): suggested or required student activity; reports, tests, readings, debates, homework, etc.
   - Material (MAT): teaching aids and instructional devices
   - Person (PER): person as physical object or personal experiences
   - Procedure (PRC): a plan of activities or a course of action
   - Statement (STA): verbal utterance, particularly the meaning, validity, truth or propriety of an utterance

Logical Process (LOG): function of language or rule of logic; reference to definitions or arguments, but not presentation of such

Action-General (ACT): performance (vocal, non-vocal, cognitive, or emotional) the specific nature of which is uncertain or complex

Action-Vocal (ACV): Physical qualities of vocal action

Action-Physical (ACP): physical movement or process

Action-Cognitive (ACC): cognitive process, but not the language or logic

Action-Emotional (ACE): emotion or feeling, but not expression of attitude or value

Language Mechanics (LAM): the rules of grammar and/or usage

6. INSTRUCTIONAL-LOGICAL MEANING: reference to cognitive processes related to the distinctly didactic verbal moves in the instructional situation

Analytic Process: see 4 above

- Defining-General (DEF)
  - Defining-Denotative (DED)
  - Defining-Connotative (DEC)
- Interpreting (INT)

Empirical Process: see 4 above

- Fact Stating (FAC)
- Explaining (XPL)

Evaluative Process

- Opining (OPN): see 4 above
- Justifying (JUS): see 4 above
- Rating: reference to metacommunication; usually an evaluative reaction (REA)
  - Positive (POS): distinctly affirmative evaluation
  - Admitting (ADM): mild or equivocally positive evaluation
  - Repeating (RPT): implicit positive evaluation when statement (STA) is repeated by another speaker; also for SOL to repeat vocal action (ACV)
  - Qualifying (QAL): explicit reservation stated in evaluation; exception
  - Not Admitting (NAD): evaluation which rejects by stating the contrary; direct refutation or correction excluded
  - Negative (NEG): distinctly negative evaluation
  - Positive/Negative (PON): SOL requesting positive or negative evaluation
  - Admitting/Not Admitting (AON): SOL asking to permit or not permit

Extralogical Process: SOL expecting physical action or when logical nature of verbal response cannot be determined

- Performing (PRF): asking, demanding; explicit directive or imperative
- Directing (DIR): SOL with or without stated alternatives; asking for directive, not permission for specific action

7. RATING SCALES FOR EVALUATIVE REACTIONS

Positive (POS): an explicitly positive statement
Admitting (ADM): a mild or equivocally positive statement
Repeating (RPT): an implicit admitting by a simple repetition, rephrasing, or restatement
Qualifying (QAL): any indication of reservation however mild or oblique
Not Admitting (NAD): making no explicitly negative statement, but refusing to admit by stating the direct contrary. Indicated by restating a positive utterance in negative terms or a negative utterance in positive terms
Negative: (NEG): an explicitly negative statement

Underlining indicates actual coding terminology.

Summary of Findings

1. The teacher-pupil ratio of activity in terms of lines spoken is approximately 3 to 1; in terms of moves this ratio is about 3 to 2. Therefore, regardless of the unit considered, teachers are considerably more active than pupils in amount of verbal activity.

2. The pedagogical roles of the classroom are clearly delineated for teachers and pupils. Teachers are responsible for structuring the lesson, soliciting responses from pupils, reacting to pupil's responses, and, to some extent, summarizing aspects of the discourse. The pupil's primary task is to respond to teacher's solicitations. Occasionally, pupils react to preceding statements, but these reactions are rarely evaluative. Pupils do not overtly react evaluatively to teachers' statements, and they evaluate other pupils' responses only when the teacher asks them to do so. There are deviations from this pattern, but they are infrequent.

3. In most classes, structuring accounts for about 10 per cent of the lines spoken; soliciting, responding, and reacting each accounts for between 20 and 30 per cent of the lines; assigned structuring and summarizing reactions account for a relatively small proportion of the discourse.

4. Analysis of the discourse in terms of teaching cycle centers on the dimensions of rate, source and pattern. Analysis in terms of these three dimensions indicates that the basic verbal interchange in the classroom is the solicitation-response. Teachers shape and frame this basic verbal unit most frequently with reacting moves, although teachers differ in the extent to which they use both structuring and reacting moves. Classes also differ in the rate at which verbal interchanges take place. Generally, teachers initiate these units of verbal behavior about 85 per cent of the time.

5. Approximately 75 per cent of the discourse was specifically concerned with substantive meanings. But of all the categories of analysis, classes varied most widely in the substantive meanings expressed. This finding was not anticipated in view of the fact that the major restriction imposed on the teachers by the research procedure was the specification of the particular substantive meanings to be covered.

6. By far the largest proportion of the discourse involved empirical meanings. This includes fact stating and explaining, which accounted for between 50 and 60 per cent of the total discourse in most of the classrooms studied. Analytic (defining and interpreting) and evaluative (opining and justifying) meanings were expressed much less frequently, each of them accounting for less than 10 per cent of the discourse in any class.

7. Approximately 25 per cent of the discourse involved instructional meanings, and almost all of these were expressed by teachers rather than pupils. A large part of these meanings might be viewed as "metacommunication," in that they involved teacher's comments about pupil's preceding comments.

8. Paralleling the instructional category, the analysis of instructional-logical meanings indicated that the most frequent statement in this

area involved teachers stating facts, usually about procedures, assignments, and other instructional matters.

9. Teachers in this sample rarely expressed clear-cut negative reactions to pupils' responses. In general, evaluative reactions did not account for a large part of the discourse in terms of percentage of total lines spoken, but whenever teachers did evaluate, their reactions were almost always at least moderately positive.

Discussion of Results

Perhaps the most striking aspects of the results are the remarkable similarity among many of the teachers and classrooms studied and the stability of single classes over the four sessions. The teacher and pupils, in any class, do much the same thing as the teacher and pupils in any other classroom.

This suggests that teachers and pupils obviously follow a set of implicit rules in the "teaching game." . . . the results strongly support the assumption that common elements underlie much of the teaching game in that pupils and teachers follow a consistent pattern of language rules.

Implications of the Research

1. The core of the teaching sequence is a teacher's question, a pupil's response, and a teacher's reaction to that response . . . . it would seem reasonable to focus both training and research specifically on this sequence of teacher-pupil interaction. In fact, the significance of this sequence of pedagogical moves was probably recognized 40 or 50 years ago in teacher training, when a substantial part of the technical education of teachers was concerned with the skill and art of asking questions . . . . For some reason, however, in more recently developed programs of teacher training, the

importance of the question-answer sequence frequently followed by a reaction has somehow become obscured in comparison to other aspects of the pedagogical process. _If_ this sequence _does define the general pattern of classroom discourse_, it would be of paramount importance to investigate this sequence in greater detail, to evaluate its pedagogical effectiveness, and devise methods of increasing the effectiveness and efficiency of both teacher's solicitations and reactions.

2. The analysis of emotional meaning expressed in the classroom needs further investigation.

3. More detailed study of pedagogical moves, definition of their functions, patterns of interchange, and kinds of responding behaviors that result is essential.

SYSTEMATIC OBSERVATION OF VERBAL INTERACTION AS A METHOD OF COMPARING MATHEMATICS LESSONS

E. Muriel J. Wright and Virginia H. Proctor
Washington University, St. Louis, June, 1961

Background of the Study

Investigations and the development of systems for classification of teacher behavior have given rise to a variety of operational definitions of the teaching-learning situation, usually from the vantage point of the broad framework of social psychology. The bulk of the work completed and reported had the process of interaction as its focus. Wright's contention is that the key aspect of the classroom is the mastery of particular subject matter. After studying the interaction of teachers and pupils in secondary school algebra classes, she developed a system of classification which attempted to identify teacher behaviors that related to pupil achievement in mathematics. Because the key aspect of the classroom is subject matter mastery, it was with the belief that the important aspects of the classroom forming the background of other studies would be placed in proper perspective if additional categories could be developed from the specifics of mathematical language. This would enable one to view teacher behavior from an additional vantage point. Wright's earlier system was refined and modified in collaboration with Proctor for use in this study.

Purpose of the Study

The major purpose of the study was verification of the utility of employing the Wright-Proctor instrument in describing interaction in classrooms.

Four types of conditions of mathematical rigor and student participation were studied in order that measures of content, of process and of attitude could be described through the use of the modified Wright-Proctor instrument.

Assumptions of the Study

1. Direct observation of classroom discussion provides perhaps the most valid means of seeking immediate answers to questions of success of experimental programs.

2. One can evaluate "process" elements as well as "product" elements in experimental math programs.

3. Psychology gives only the approach to problems, which must seek complete solution in logic.

4. Observation instruments can be developed which are specifically designed to discern patterns of discourse in the teaching-learning process.

5. The key aspect of the classroom is the mastery of particular subject matter. Thus, in investigating and categorizing the teaching-learning situation, instrumentation should concentrate on the essential aspects of language.

6. The essential aspects of language are carried on through the broad vehicle of psychological processes and in the even broader framework of sociological attitude. Thus, the observation of the classroom must account for content within the framework of these psychological processes and sociological attitudes.

7. Inter-behavior of learner and subject matter is the key condition prerequisite for learning and should be implicit in models even of aspects of the general learning problem.

Systems of Classification

The three major categories of behavior are Mathematical Content, Psychological Process, and Sociological Attitude. The categories of mathematical content in Wright and Proctor's own language "have been selected to correspond to aspects of mathematical systems and functional classroom behavior." Classification of behavior into the Content categories answers the question, "What aspect of mathematics is being worked on?"

Although the authors do not state explicitly that their Process category was derived from Guilford's "structure of the intellect," it appears that this is the case. They state that, "the categories of process were selected at a functional level in consideration of subject matter rather than at the finest division of formal logic (Smith et al), i.e., syllogistic, classificatory, and relevant levels." It is also noted that the categories of the Process frame developed under the above considerations are in keeping with the broad division of the problem solving process reached empirically by Duncker.

The derivation of the Sociological Attitude category seems somewhat more obtuse than the other two, but is referenced to the work by DeCharms and Bridgman on the teaching learning process seen as a problem in interaction. Apparently the categories of Curiosity, Independence, and Receptivity were drawn from a so-called "contingency model" established by DeCharms which describes only three possible forms of dyadic interaction. They are, namely, noncontingent (behavior unaffected by other people--follows pre-determined course), asymmetrically contingent (one person follows pre-determined course, the second responds in relation to the first person), and symetrically contingent (the behavior of each person is determined to some extent by the behavior of others) interaction. How the authors derived the categories which they finally used from this dyad model is a mystery to me.

There is a fourth category although it is not described. This is the classification of other behaviors, i.e., neutral and nonverbal behaviors. Verbal behaviors which concern non-mathematical matters are classified as neutral. In the case of this study non-verbal behaviors are not recorded.

A. CONTENT FRAME

Fundamentals: The body of mathematical knowledge at the command of the pupils

1. Structure
   - 1.1 Fundamental elements, operations, postulates
   - 1.2 Well-established theory when understanding is apparent
   - 1.3 Logical principles
   - 1.4 Strategies of problem-solving

2. Techniques
   - 2.1 Description and use of mechanical processes or rules where basic mathematical relation is not made apparent
   - 2.2 Reading of mathematical materials already developed

Relations: The development and statement of "new" relations

3. Deductive
   - 3.1 Logical proof of new theory

4. Inductive
   - 4.1 Use of specific examples selected to elicit new generalization or relation
   - 4.2 Use of graphs, diagrams to make a relation clear
   - 4.3 Intuitive approach to a relation

5. Statement
   - 5.1 Statements of new relations
   - 5.2 Definitions, notation, terminology; mathematical conventions

Applications: The use, place of the mathematical system in specific problems and in historical context

6. Mathematical
   - 6.1 Solution of mathematical problems

7. Other
   - 7.1 Brief statement of problem in other field before abstraction essentials
   - 7.2 Examination of problems in terms of the concepts of the other field
   - 7.3 References from mathematical history
   - 7.4 Reference to new topics or different treatment to be met in later courses
   - 7.5 Humor--when pertinent to mathematical activites

B. PROCESS FRAME

Syllogistic: The syllogistic categories of analyzing and synthesizing require the logical operation of inference. Although synthesizing is often mechanical, it may also be the method of highly creative divergent thinking.

1. Analyzing--from assumption of desired conclusion toward accepted principles
   - 1.1 Chain of backward implication--"is implied by"
   - 1.2 Less systematic moving backward from goal, seeking connection with known premises to establish approach to proof
   - 1.3 Justification of a statement
   - 1.4 Moving backward over an argument to discover mistake or clarify meaning

2. Synthesizing--from accepted principles toward desired conclusion
   - 2.1 Chain of forward implication--"implies"
   - 2.2 Consolidation of parts into a complete solution

Classificatory: The classificatory categories of generalizing and specializing include the formulation of generalizations, and the less formal but very necessary heuristic process of problem dissection and focusing on goal.

3. Specializing--the use of significant attributes of a given set in an analogous set, or the application of a given set in a smaller included set
   - 3.1 Selection of significant parts of a problem--dissection, abstraction
   - 3.2 Application of a generalization
   - 3.3 Recognition of relation of corresponding sets
   - 3.4 Focusing on goal

4. Generalizing--the recognition of significant attributes of a given set and the passing from the consideration of the given set to that of a larger inclusive set
   - 4.1 Recognizing significant attributes and passing to a larger set
   - 4.2 Statement of a formula, law, relation, definition to be proved or arising from development or to be examined for meaning

Relevant: A more static category, the statement of relevant information occurs when mathematical information is presented but belongs to no apparent logical sequence.

5. Relevant
   - 5.1 Information about specific mathematics
   - 5.2 Information about more general aspects of mathematics

C. ATTITUDE FRAME

Teacher or Pupil: The teacher demonstrates or encourages pupil behaviors in each category; the pupils demonstrate the behaviors in each category.

1. Curiosity--fresh unusual material; a new direction
    - 1.1 Teacher statements relating present topic to other areas of mathematics or to other fields, or to more fundamental mathematical concepts or to historical context
    - 1.2 Teacher encouragement of unusual problem or new direction including positive support of pupil expression of unusual interest
    - 1.3 Pupils make statements as in 1.1
    - 1.4 Pupils ask questions about 1.1

2. Independence
    - 2.1 Teacher open questions or suggestions demanding pupil thinking beyond one carefully structured step
    - 2.2 Turning of pupil-raised question back to same pupil or to the class
    - 2.3 Assignment of pupil topics for class demonstration including regular homework questions developed on blackboard by pupil
    - 2.4 Pupil statements moving problem solution forward more than one step during the interval
    - 2.5 Responsibility for development taken by pupil sometimes indicated by several steps forward or merely by one powerful step forward in a single interval
    - 2.6 Pupil initiates discussion by asking a question and noting specific aspects he has considered

3. Receptivity
    - 3.1 Teacher tells, states, solves problems
    - 3.2 Teacher asks rhetorical questions or questions limited to one-step often trivial or merely yes-no answers
    - 3.3 Teacher is responsive to signals that pupils understand, follow the discussion, are interested in the presentation
    - 3.4 Pupils respond appropriately when called on, but answer is limited to one relatively small step
    - 3.5 Pupils ask questions without indicating readiness to treat it themselves with teacher's assistance

Conclusions of Study

The burden of this investigation was further verification of the utility of employing the Wright-Proctor instrument as a device for describing interaction in classroom situations. The results tend to affirm that the instrument can be used in this way and a complete sub-section of the study was devoted to the question of observer reliability. The reliability coefficients are quite adequate for further employment of the instrument. All of the substantive findings in the study were concomitant to the overall purpose of instrument development.

The authors note that, "distinctive patterns in the areas of Content, Process, and Attitude were established for the four types of classrooms investigated." (page 137) "These distinctions were noted in terms of single categories within each area, by combinations of categories within Content and Process and by triple combinations of categories across the three areas simultaneously." (page 137)

The investigators feel that as a result of the study they are able to describe patterns of classroom preparation for the four types of classrooms.

Implications for Teaching

The implications of the investigations for teaching revolve around the utility of the instrument for teaching purposes and the authors state that, "the availability of the new manuals should make possible the use of this instrument in methods courses in mathematics teacher training programs, in sharpening attention to aspects of content, process, and attitude significant in the classroom, and then by direct observation to emphasis of behaviors of the teacher that stimulate and of the pupils that demonstrate a particular desired end."

EVALUATING EDUCATIONAL OUTCOMES BY MEANS OF FORMAL BEHAVIORAL SCIENCE INSTRUMENTS

Bertram B. Masia, University of Chicago

This working paper is an inventory of instruments in the behavioral sciences. Its chief purpose is as an aid in the development of criteria for evaluating college curricula designed especially for the preparation of teachers in lower-class urban schools. The focus of such appraisals could be either on the behaviors of students in these educational programs, on the behavior of teachers who have completed these educational programs, or, last but not least, on the behaviors of pupils who are in the classrooms of teachers who have completed these educational programs.

The paper is divided into three major sections, each dealing with a major type of variable. Section I deals with instruments that appraise cognitive outcomes of instruction, Section II with instruments measuring affective outcomes of instruction, and Section III with those input or non-school variables which affect instructional outcomes.

SECTION I. INSTRUMENTS MEASURING COGNITIVE OUTCOMES OF INSTRUCTION

The situation with respect to cognitive educational achievement tests is quite simple. More than one-half of the some two thousand current tests in print are instruments designed to measure cognitive outcomes of instruction. There are tests in English, science, mathematics, social studies, art, music, and many of the more minor areas of the curriculum such as home economics, and health. There are tests at all levels of the educational structure, but a very large proportion of the tests are concentrated at the secondary level. Unfortunately, few cognitive achievement tests have been developed directly from statements of behaviors to be measured. Where behaviors are given, they were usually included as afterthoughts. Certainly, where analyses of the content of cognitive achievement tests are made in terms of some scheme for classifying the behaviors measured, the results always indicate that the bulk of the test measures the ability to recall knowledge and information. Bloom (4:16) reports an analysis of the contents of the Cooperative General Culture Test (grades 13 and 14) and the area tests of the Graduate Record Examination (for college graduates) in terms of the categories of his taxonomy of educational objectives. The results of the analysis were:

Cognitive Taxonomic Level	Per cent of Items Falling at Each Level for Coop General Culture		GRE
	Form XX ('51)	Form A ('54)	
1. Knowledge	99	88	42
2. Comprehension	--	10	48
3. Application	1	2	7
4. Analysis	--	--	3
5. Synthesis	--	--	--
6. Evaluation	--	--	--

If two of our so-called blue-ribbon tests are almost exclusively measuring lower mental processes, it would be too much to expect a different picture from the run-of-the mill, hastily assembled cognitive achievement tests.

As for achievement test batteries, the picture is not much brighter despite the claims of their publishers that they indeed are measuring the higher mental processes. A recent unpublished study by Chung at the University of Chicago required the classifying of items in the STEP Science and Social Studies tests grossly in terms of measuring higher or lower (knowledge and comprehension) mental processes. Only 10 per cent of the items fell in the first category.

Standardized achievement test batteries possess an additional weakness when one is considering them to evaluate specific educational programs. More and more they are coming to measure general verbal facility and reasoning abilities. The intercorrelations among the various tests in the battery are very high. Thus there is a minimum of specificity in any one test.

The most viable current criteria for appraising cognitive developments in an educational program are represented by the levels of proficiency of the Taxonomy of Educational Objectives for the cognitive domain (2). The levels of achievement were developed around a principle of complexity in which the skills required at a particular level are more complex than those at the preceding levels but less complex than those at subsequent levels. The six taxonomic levels, in order of their complexity, and illustrative behaviors for each are:

Level 1. Knowledge: The recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting.

Behaviors: Defining technical terms by giving their properties

Recalling major facts about particular cultures

Being familiar with the forms and conventions of major types of literary works

Understanding the continuity and development of American culture

Becoming familiar with a range of types of literature

Knowledge of criteria for evaluating recreational activities.

Level 2. Comprehension: The individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications.

Behaviors: Ability to understand nonliteral statements

Ability to interpret various types of social data

Skill in predicting continuation of trends.

Level 3. Application: The use of abstractions in particular and concrete situations. The abstractions may be in the form of general ideas, rules of procedures, or generalized methods.

Behaviors: Applying to the phenomena discussed in one paper of the scientific terms or concepts used in other papers.

Level 4. Analysis: The breakdown of a communication into its constituent elements or parts so that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit.

Behaviors: Ability to recognize unstated assumptions

Skill in comprehending the interrelationships among the ideas in a passage

Ability to recognize the general techniques used in persuasive materials.

Level 5. Synthesis: The putting together of elements and parts so as to form a whole.

Behavior: Skill in writing, using an excellent organization of ideas and statements

Ability to propose ways of testing hypotheses.

Level 6. Evaluation: Judgments about the value of material and methods for given purposes.

Behaviors: Ability to indicate logical fallacies in arguments

Ability to compare major theories, generalizations, and facts about particular cultures.

SECTION II. AFFECTIVE OR NON-COGNITIVE INSTRUMENTS

A. A Taxonomy of Affective Outcomes of Instruction

The recently published second volume of the Taxonomy of Educational Objectives (9) provides a framework for ordering stated affective outcomes of instruction and for establishing criteria for conducting evaluative studies of efforts to achieve such outcomes. This volume is given special attention here because it may offer valuable clues in the quest for viable criteria by which to evaluate curricula designed to prepare teachers of disadvantaged youth.

The authors define affective educational objectives as those which "emphasize a feeling tone, an emotion, or a degree of acceptance or rejection" (9:7). There is a clear implication here that objectives falling in this domain are to be viewed as proficiency or achievement variables, and in this sense are to be directly linked with objectives in the cognitive realm. Once this view is accepted, it follows that instructional programs can be designed for the purpose of attaining affective goals.

Below are five examples of affective objectives that often appear in school district courses of study. The reader should note that some of these objectives contain cognitive as well as affective properties. However, in each instance the affective properties carry greater weight:

1. The student develops a sense of responsibility for listening to and participating in public discussion.
2. The student begins to form judgments as to the major directions in which American society should move.
3. The student views problems in objective, realistic, and tolerant terms.
4. The student develops a tolerance for a variety of types of music.
5. The student listens for rhythm in poetry or prose read aloud.

Just as cognitive behaviors were classified on the basis of a principle of complexity, affective behaviors are classified in a system of taxonomic categories, or levels, based upon a principle of internalization. Five major categories were established to account for educational objectives with predominantly affective properties. Each category represents a degree of internalization greater than the one that precedes it. Briefly stated, the five categories and their central characteristics are:

1. Receiving (Attending). The lowest level at which the learner is simply aware of the existence of an object or phenomenon. He merely tolerates its presence, doing nothing to seek it out.
2. Responding. Merely attending the phenomenon, the essential characteristic of the first stage, is now succeeded by actively attending the phenomenon and seeking it out, thereby gaining satisfaction from working with it or engaging in it.
3. Valuing. Now the phenomenon or behavior has worth. There is a consistency and stability to the behavior that gives it the characteristic of an attitude or value.
4. Organization. This level deals with the organization of a host of values into a system. Such a system is represented by interrelations of values and by a hierarchy of values.
5. Characterization. At this, the peak of the internalization process, the individual develops a set of general orientations toward the world about him and a personal philosophy that guides his behavior and is the essence of his character. Viewed behavioristically, this is the level of a second-order value system. At this level belongs such behavioral science constructs as identity and self-image.

To show how these categories can be used to order a set of educational objectives in a particular curricular area, consider the following objectives in art and note the increasing degree of internalization as the list unfolds:

"LEVEL"	EDUCATIONAL OBJECTIVE
1. RECEIVING	Develops some consciousness of the use of shading to portray depth and lighting in a picture
	Develops a tolerance for bizarre uses of shading in modern art
	Is on the alert for instances in which shading has been used to create a sense of three-dimensional depth at the same

	time that it indicates something about the lighting in a picture
2. RESPONDING	Voluntarily looks for instances of good art where shading, perspective, color, and design have been well used
	Enjoys finding instances of good art where shading, perspective, color, and design have been well used
3. VALUING	Continuing desire to develop a critical artistic sense
	Seeks out examples of good art for enjoyment of them
4. ORGANIZATION	Desires to evaluate works of art that he (the student) appreciates
	Acceptance of the place of art in one's life as one of dominant value
5. CHARACTERIZATION	Views all problems primarily in terms of their esthetic aspects.

As with cognitive achievement tests, many non-cognitive or affective instruments can now be described in terms of the distribution of their items across the five levels of the affective taxonomy. An example of such variability in test content is given below. The test form which the items are taken is the *Questionnaire on Voluntary Reading; Test 3.32* (Eight-Year Study, Progressive Education Association, 1940). The letters in parentheses indicate the response alternative (Yes or No) that is keyed to the affective taxonomy category. A descriptive behavior is attached to each test item to demonstrate congruence between the two. This test does not contain items that can be classified under the last two categories of the taxonomy--*Organization* and *Characterization*.

"Level"		
RECEIVING	Appreciation of voluntary reading (tolerates)	Do you wish that you had more time to devote to reading? (Y)
	Alertness toward different types of voluntary reading (favors; prefers)	Is there any type of non-fiction, such as biography, travel, or science, which you would like to read more of at present? (Y)

RESPONDING	Increased appetite and taste for what is good in literature. (is compliant; is passive; is obedient)	Do you ordinarily read fewer books during the summer vacation period than you do during a similar period of time while school is in session? (N)
	Enjoys reading books taken out of the school library voluntarily. (finds pleasure in; has a zest for)	Do you often become so absorbed in your reading of a book that you are almost unaware of what is going on around you? (Y)
VALUING	Appreciation of the place of reading in one's life. (accepts as important)	Have you ever tried to become in some respect like a character whom you have read about and admired? (Y)
	Willingness to form judgments about books read. (is involved)	Is it quite unusual for you to compare your opinion of a book with that of someone else? (N)
	Devotion to reading as an avenue for self-improvement. (is certain; has loyalty for; has a conviction about; has a passion for)	Do you find that the reading of books is of little help to you in understanding yourself and your own problems more clearly? (N)

B. Measures of Character and Personality (roughly comparable to Affective Taxonomy levels 4 and 5)

By and large, this genre of test has been developed by research workers in the fields of personality, abnormal, and clinical psychology. In some instances the instrument was developed to study the possibilities inherent in a theoretical model; in other instances the instrument evolved from the quest, essentially factor analytic, to identify "central" personality traits. Still other instruments were developed for the important yet practical purpose of identifying individuals with emotional disturbance and, if possible, casting light on the nature of the disturbance.

The important point to be made here is that the application of these tests to educational matters has not been singularly successful. The major constructive use so far made of them has been in the identification and diagnosis of students with "blocks" to learning. There has been, as yet, no significant effort to build instruments for the express purpose of appraising those educational outcomes that have to do directly with personality development.

Tests of character and personality are classified below as being of two types: (1) Those measures that are not disguised (that is, the respondent can determine the intent of the question and thereby exert control over his response) and _structured_ (that is, the respondent is forced to choose one of several specific response alternatives). We will call these measures non-projective techniques. (2) Those measures that are disguised and are not structured (that is, they require freely composed responses). These measures we will refer to as projective techniques.

1. Non-Projective Techniques

a. _Measures based on theoretical models_: The _Edwards Personal Preference Schedule_ (Psychological Corporation, 1953) and the _Stern Activities Index_ (Syracuse University Psychological Research Center, 1958-63) are based on the need-press system developed at the Harvard Psychological Clinic under Henry A. Murray in the early 1930's. Manifest needs were theorized to represent mainsprings of human behavior.

The Edwards schedule contains fifteen of the variables of the Murray need system. These needs, together with short descriptions of each, are as follows:

Achievement:	to accomplish something difficult or significant
Deference:	to let others make decisions
Order:	to keep things neat and well organized
Exhibition:	to be the center of attention
Autonomy:	to be independent of others in making decisions

Affiliation:	to be loyal
Intraception:	to analyze one's motives and feelings
Succorance:	to receive help or affection from others
Dominance:	to persuade and influence others
Abasement:	to accept blame, to feel timid or inferior
Nurturance:	to be generous with others
Change:	to do new and different things
Endurance:	to keep at a job until it is finished
Heterosexuality:	to go out with one of the opposite sex
Aggression:	to attack contrary points of view

The schedule consists of 210 pairs of items in a forced-choice format (respondent must choose one statement in each pair). Some of the statements have to do with preference. ("I like to talk about myself to others." "I like to work toward some goal that I have set for myself.") Other statements deal with feelings and states of feelings. ("I feel depressed when I fail at something." "I feel nervous when giving a talk before a group.")

Stern's Activities Index employs thirty of Murray's needs in conjunction with thirty matched press variables contained in a series of measures (by Stern and Pace) of different types of educational institutions (College Characteristics Index, Evening College Characteristics Index, High School Characteristics Index). The major purpose of these instruments is in the study of interactions between manifest needs of students and academic environmental press, that is, the forces operating on a particular college campus or in a particular high school. Such forces are conceptualized in terms of press, such as a press for achievement, a press for affiliation, a press for aggression, and so forth.

The Activities Index can be used without a companion measure of environmental press. It consists of 300 statements describing different kinds of activities. ("Taking up a very active outdoor sport." "Being careful to wear a raincoat and rubbers when it rains." "Studying the music of particular composers, such as Bach, Beethoven, etc.") The respondent indicates whether he likes or dislikes the activity.

With respect to both item content and response task the Edwards and Stern measures strongly resemble the much more superficial measures of interests such as the Strong Vocational Interest Blank and the Kuder Preference Record, Vocational. Yet both Edwards and Stern have succeeded in making the level of analysis a much deeper one. Edwards has done this by using a sophisticated theoretical model, and Stern, as we shall see, by starting with a model and conducting factor analytic studies in order to discern more basic patterns of needs.

The 300 statements of the Activities Index are divided into thirty scales of ten statements each. Each scale corresponds to a manifest need and contributes to a score on one or more of twelve factors (three bi-polar) which, in turn, are interrelated in four second-order personality dimensions. The composition of the four dimensions is:

I. Intellectual Orientation

Self-assertion. "A need to achieve personal power and socio-political recognition."

Audacity-Timidity. Emphasis is on "aggressiveness in both physical activities and in interpersonal relationships."

Intellectual interests. "Include interests in the arts as well as the sciences, both abstract and empirical."

Motivation. "Here are the more conventional forms of striving most recognizable among students, involving elements of competitiveness and perseverance as well as of intellectual aspiration."

Applied interests. "An interest in achieving success in concrete, tangible, socially acceptable activities. The items involve orderly and conventional applications in business and science."

II. Dependency Needs

Applied Interests. (Where a description is not given, it means that this variable has also appeared in a previous dimension.)

Constraint-Expressiveness. "Guardedness and emotional constriction."

Diffidence-Egoism. "Lack of preoccupation with self."

Orderliness. "Interest in activities stressing personal organization and deliberateness."

Submissiveness. "A high level of control based on social conformity and other-directedness."

Timidity-Audacity. "Concern with any risk or danger to the self."

Closeness. "Acceptance of items which recognize one's needs for warmth and emotional supportiveness."

III. Emotional Expression

Closeness.

Sensuosness. "A measure of self-indulgence along with a delight in sensual gratification."

Friendliness. "Interest in playful, friendly relationships with other people."

Expressiveness-Constraint. "Emotional liability and freedom from self-imposed controls."

Egoism-Diffidence. "Extreme preoccupation with self."

Self-assertion.

IV. Educability

Intellectual interests

Motivation

Applied interests

Orderliness

Submissiveness

The first Cooperative Study in General Education developed, as part of a large-scale appraisal of college objectives in the humanities, the General Goals of Life Inventory (7:21-78). This inventory identifies the dominant life goals of the college student. Twenty life goals are employed, each reflected in a representative statement. The student is presented with 190 pairs of statements (each life goal statement is paired once with all other nineteen) and is asked to indicate which statement of the pair "is a more nearly adequate expression of your main life goal." Examples of statements of life goals are:

A. Serving God, doing God's will

B. Achieving personal immortality in heaven

C. Self-discipline--overcoming my irrational emotions and sensuous desires

E. Doing my duty

G. Serving the community of which I am a part

J. Finding my place in life and accepting it

N. Making a place for myself in the world; getting ahead

P. Security--protecting my way of life against adverse changes

S. Survival, continued existence

T. Handling the specific problems of life as they arise.

b. Measures based on factor analytic studies of personality traits

The Guilford-Zimmerman Temperament Survey (Sheridan Supply Co., 1949-55) is the most comprehensive of a series of personality inventories developed in J. P. Guilford's psychometric laboratory at the University of Southern California. Preceding the Guilford-Zimmerman inventory were the Inventory of Factors STDCR, the Guilford-Martin Inventory of Factors CAMIN, and the Guilford-Martin Personal Inventory. The Temperament Survey is a 300-item, ten-factor inventory consisting of thirty affirmative statements for each factor. Examples of items (three response alternative: Yes, No, ?) are: "You start work on a new project with a great deal of enthusiasm." "Most people use politeness to cover up what is really 'cut-throat' competition."

The ten factors or traits measured by this inventory, and some of the characteristics of each, are:

G-General activity: energy, liking for speed, quickness of action

R-Restraint: deliberate, self-control, persistent effort

A-Ascendance: persuading others, bluffing

S-Sociability: liking social activities, having many friends

E-Emotional stability: evenness of moods, interests, energy, composed, optimistic

O-Objectivity: "thick-skinned"

F-Friendliness: toleration of hostile action, respect for others

T-Thoughtfulness: reflective, meditative

P-Personal relations: faith in social institutions, tolerance for people

M-Masculinity: hardboiled, inhibited emotional suppression, not easily disgusted.

The Thurstone Temperament Schedule (Science Research Associates, 1949-53) yields seven traits derived from a factor analysis of the thirteen personality areas measured by the first three Guilford inventories. The seven traits are:

A-Active

V-Vigorous

I-Impulsive

D-Dominant

E-Stable

S-Sociable

R-Reflective

The other major source of factored personality inventories is Cattell's Institute for Personality and Ability Testing at the University of Illinois.

The chief product of this laboratory has been the Sixteen Personality Factor Questionnaire. The scores are described in terms of bi-polar factors:

A-aloof vs. warm, outgoing

B-dull vs. bright

C-emotional vs. mature

E-submissive vs. dominant

F-glum, silent vs. enthusiastic

G-casual vs. conscientious

H-timid vs. adventurous

I-tough vs. sensitive

L-trustful vs. suspecting

M-conventional vs. eccentric

N-simple vs. sophisticated

O-confident vs. insecure

Q1-conservative vs. experimenting

Q2-dependent vs. self-sufficient

Q3-lax vs. controlled

Q4-stable vs. tense

c. Measures based on empirical criteria or adjustment concepts

The inventories in this group are of the omnibus or "cover the waterfront" variety. Some of them are now historical relics from a less theoretically-oriented period of our past. But they are included here on the slight chance that a few of the score categories may be of use to Task Force Three.

The Adjustment Inventory. Hugh M. Bell. (Consulting Psychologists Press, 1934-39). Four scores: home adjustment, health adjustment, social adjustment, emotional adjustment.

California Psychological Inventory. Harrison G. Gough. (Consulting Psychologists Press, 1956-57). Eighteen scores among which are:

dominance; capacity for status; sociability; sense of well-being; responsibility; achievement via conformance; achievement via independence; intellectual efficiency; flexibility.

California Test of Personality. L. P. Thorpe, W. W. Clark and E. W. Tiegs (California Test Bureau, 1939-53). Fifteen scores among which are: self-reliance; sense of personal worth; social skills; family relations; school occupational relations; community relations.

Kuder Preference Record-Personal. G. Frederic Kuder (Science Research Associates, 1948-54). Five scores: group activity; stable situations; working with ideas; avoiding conflict; directing others.

Minnesota Counseling Inventory. R. F. Birdie and W. L. Layton (Psychological Corporation, 1953-57). Seven scores: family relationships; social relationships; emotional stability; conformity; adjustment to reality; mood; leadership.

Minnesota Personality Scale. J. G. Dailey and W. J. McNamara (Psychological Corporation, 1941). Five scores: morale; social adjustment; family relations; emotionality; economic conservatism.

The Personality Inventory. R. G. Bernreuter (Consulting Psychologists Press, 1931-38). Six scores: neurotic tendency; self-sufficiency; introversion-extroversion; dominance-submission; confidence-sociability.

SRA Junior Inventory. H. H. Remmers and R. H. Bauernfeind (Science Research Associates, 1951-57). A problems check list for pupils in grades 4-8, yielding five scores: school; home; myself; people; health.

SRA Youth Inventory. H. H. Remmers, B. Shimberg and A. J. Drucker (Science Research Associates, 1949-56). A problems check list for students in grades 7-12. Seven scores: school; future; myself; people; home; dates and sex; health.

2. Projective Techniques

It is quite unlikely that projective techniques can be widely used in educational evaluation. A major portion of these instruments are individually administered and require highly trained personnel for administration and for scoring. Furthermore, the bright promise held out by the early projective techniques, particularly the Rorschach, has not materialized. Of greatest disappointment has been the many failures to achieve satisfactory levels of construct validity.

This review of the chief projective techniques will follow the classification scheme proposed by Lindzey (12). His scheme is based on the nature of the task set for the respondent.

a. Associative techniques: Here the respondent is required to respond to some stimulus presented by the examiner with the first word, or the first precept, or the first image that occurs to him. The Rorschach and the classic word association test are examples of this type of projective technique.

b. Constructive techniques: The respondent is required to create or construct a product such as a story or a picture. As with Murray's Thematic Apperception Test (Harvard University Press, 1936-43), the best known instrument in this category, the instructions are to tell what has happened, what is happening, and what will happen. The TAT, based on the Murray need-press model, contains thirty pictures of which ten are for men and women, ten for men only, and ten for women only. Pictures were chosen for their ambiguity and for their capacity to elicit constructions concerning need and press.

Bellak's Children's Apperception Test (C.P.S., 1949-55) is an adaptation of the TAT for children, ages 3-10. Animal figures are used exclusively in each of the ten pictures in the series. The scenes in the pictures reflect common problems of childhood, for example, feeding conflicts, interpersonal problems in the classroom, common fears.

The Michigan Picture Test (Science Research Associates, 1953) was designed especially for grade school children (ages 8-14). The scenes in the set of sixteen pictures (four for boys only and four for girls only) are largely school-oriented and contain scenes, realistic yet ambiguous, common to children of these ages. These scenes, among others, depict conflicts within the family, school conflicts, and conflicts involving aggressive drives. The instrument's main function is to distinguish well-adjusted from poorly adjusted children.

Shneidman's Make-A-Picture Story Test (Psychological Corporation, 1947-52) reveals the great flexibility of projective techniques. It consists of a number of background scenes presented singly to the respondent along with a large number of movable human and animal figures. The child puts these figures on the picture and then tells a story about his construction. In the construction he can freely handle and arrange the figures in any fashion, including the possibility of rejecting some.

The Blum Blacky Pictures (Psychological Corporation, 1950) is based on the psychoanalytic theory of sexual development. The set consists of twelve pictures, each of animals in cartoon style and representing scenes in the life of a dog named Blacky. Sharing these scenes with Blacky are Mama, Papa, and Tippy, a sibling. The scenes are designed to reflect various childhood problems. Each card is presented to the child with a brief introduction, such as "Here is Blacky with Mama." The story is composed in the TAT manner.

c. Completion techniques: Here the respondent is confronted with some type of incomplete product. He is then required to complete it in any manner he wishes.

The sentence completion model exists in many forms. It contains a stimulus that is longer and more complex than the stimulus in the word association test. Furthermore, it requires a longer response. The range of objects is infinite, thus making it a relatively easy task to construct forms on a whole host of personal variables such as goals, educational aspirations, relations with parents, feelings about teachers and schoolmates, fears, and siblings.

The Rosenzweig Picture-Frustration Study (1944-49) is the other major example of the completion technique. There are two forms of the instrument, one for children, ages 4-12, and one for "adults," ages 14 and over. Rosenzweig appraises frustration and its nature (according to a theoretical model) by means of a series of cartoon situations. In each cartoon there is a scene enacted by two expressionless figures. One figure is the cause of the frustration, the other, the recipient. The frustration is conveyed by means of a statement made by the former. The task for the respondent is to provide a verbal response for the person who has been frustrated.

d. Choice or ordering techniques. In this type of projective the respondent chooses from a number of alternatives the arrangement or item that fits some specified criterion.

The Tomkins-Horn Picture Arrangement Test (Springer, 1942-57) is an excellent example of this type of instrument. It is a modification of the TAT, consisting of twenty-five cartoon-like pictures each depicting the same figure in three different but related activites. The respondent arranges the three sketches in an order "which makes the best sense" and then writes one sentence for each sketch telling what is going on. The rationale underlying the test is that different arrangements signify different personality issues.

e. Expressive techniques. Here the respondent makes a novel production by combining or manipulating stimuli. This technique differs from the constructive technique in that it emphasizes the manner in which the product is created as much as the production itself. In addition, some of these techniques, particularly doll play and finger painting, have therapeutic as well as diagnostic functions.

Lois Murphy's Miniature Life Toys employs all types of play materials--dolls, trains, animals, furniture--as a basis of structuring appraisal situations.

Drawing techniques are represented by the Machover Draw-a-Person Test.

The child, ages 2 and over, is asked to draw a person and, when this has been done, to draw a person of the opposite sex. The Buck H-T-P projective Technique is deceptively simple. It requires that the respondent make a drawing that contains a house, tree, and person. Claims for this technique are that performance is related to a variety of variables, chief among which are intelligence, major personality need, interpersonal relations, and affect state.

C. Measures of Attitudes and Values (roughly correspond to the affective taxonomy categories 3 and 4)

The number of posited dimensions of personality is large but finite. Therefore, most of the measures constructed at the personality organization level have been made available for use by qualified people. But this is not the situation with respect to attitudes and values. One could go on forever in itemizing objects and phenomena toward which we can have sentiments. There was a time in the infancy of attitude scales when it was the rage to inventory specific attitudes. The consequence was that there was an overwhelming tide of scales in print, many of which were of dubious value. The tide has since receded to a mere trickle as research on attitudes and values has moved to more sophisticated levels, requiring instruments that are geared to the requirements of the particular research but that rarely have more general usefulness. Therefore, a majority of the measures cited in this section are unpublished. In general, an unpublished instrument is cited here for one of two reasons: either it touches upon a dimension of valuing or attitude structure that may have implications for instruction and evaluation, or, as in the case of the projective technique in the service of attitude measurement, a clever method of appraisal could be adapted to the needs of educational evaluation.

1. Non-Projective Techniques

We consider first a group of instruments that yield scores on a set of values or attitudes that hang together on a theoretical, logical, or empirical basis.

The Allport-Vernon-Lindzey Study of Values (Houghton Mifflin, 1931-51) is widely used in educational guidance and as a research tool. It is based on Spranger's theory that there are essentially six basic types of values, namely theoretical, economic, aesthetic, social, political, and religious. This test provides a score for each value type, the respondent being characterized in terms of the pattern of value scores.

Rosen developed a Value Orientation Questionnaire (15) by employing three of Florence Kluckhohn's five basic value orientations. The three orientations Rosen used in his instrument, and an example of an item for each (responded to a five-point scale from strongly agree to strongly disagree) are:

1. Activistic-passivistic orientation, that is, the belief in the possibility of manipulating the physical and social environment to one's advantage. ("All I want out of life in the way of a career is a secure, not too difficult, job with enough pay to afford a nice car and eventually a home of my own.")
2. Present-future orientation. The emphasis here is upon present and immediate gratifications as opposed to planning and sacrifices in order to insure future gains. ("Nowadays, with world conditions the way they are, the wise person lives for today and lets tomorrow take care of itself.")
3. Familistic-individualistic orientation. ("Nothing in life is worth the sacrifice of moving away from your parents.")

Stern (16) and his co-workers, on the basis of large-scale interviewing of teachers concerning motivations for and satisfactions in teaching, postulated ten basic types of teacher roles, each of which can be characterized by a major gratification and a central attitude:

	Role	Gratification	Attitude
1.	Practical	Instrumental rewards	Detachment
2.	Status-striving	Prestige	Professional dignity
3.	Nurturant	Children's affection	Providing love
4.	Nondirective	Children's autonomy	Encouraging self-actualization
5.	Critical	Promoting teacher's rights	Reforming schools
6.	Pre-adult Fixated	Vicarious participation	Identification with children
7.	Orderly	Obsessive compulsions	Developing good pupil habits
8.	Dependent	Support for superiors	Cooperation with authority
9.	Exhibitionistic	Children's admiration	Showmanship
10.	Dominant	Children's obedience	Maintaining discipline

Using this formulation as a framework, a Gratification Test and an Attitudes Test were constructed, each containing ten items for each role. On the latter test, teacher and teacher-trainee respondents judged each item in terms of a six-point scale ranging in degree of intensity from strong disagreement to strong agreement. The six response alternatives for the Gratifications Test were structured in terms of degree of dislike. Examples of two items from the Role 1 scales are:

> "Finishing all my work during the school day so that when I go home my time will be my own." (Gratification)
>
> "Teachers who devote practically all of their time to school activities are actually less effective as teachers than those who pursue other interests." (Attitude)

Kreitlow and Dreier report the development of a short twenty-four-item scale for delineating the predominant educational philosophical orientation of a teacher (10). Eight value-laden statements represent each of the "basic" orientations, namely, academic, progressive, and community. The central emphasis of each orientation is:

> Academic: "Book knowledge-set-out-to-be-learned." ("Competition and rivalry are the best incentives to pupil achievement.")
>
> Progressive: "Child-interests-to-be-expressed." ("The child is innately good and should be allowed to grow naturally.")
>
> Community: "Human needs-to-be-met." ("The child is neither good nor bad but may become either, depending upon his experiences.")

The current International Project for the Evaluation of Educational Attainment (UNESCO Institute for Education) is studying the mathematics achievements of students in grades 8 through 14 in some twenty different countries. Included in the test battery is a forty-three-item inventory of five different types of attitudes:

I. Attitudes toward mathematics as a process. That is, the view that mathematics is closed and formal as opposed to a view that it is a process of open and continual inquiry. ("Mathematics helps one think according to strict rules." Agree, Disagree, ?)

II. Attitudes about the difficulties of learning mathematics. The view is of mathematics for the few, the elite, or for all men. ("Almost anyone can learn mathematics if he is willing to study.")

III. Attitudes about the place of mathematics in society. The elitist, luxury orientation versus the view that mathematics is essential in social progress. ("Outside of science and engineering, there is little need for mathematics in most jobs.")

IV. Attitudes toward man and his environment. The view that man is at the mercy of his environment as opposed to the view that man can actively control and change his environment. ("Someday the deserts will be converted into good farming land by the application of engineering and science.")

V. Attitudes toward school and school learning. "I love school and I want it" as opposed to "I hate it and I want to get out as soon as possible." ("I enjoyed everything about school.")

Of the single-score scales that measure the attitudes of teachers toward children and schoolwork cited in the literature, the Minnesota Teacher Attitude Inventory by Cook, Leeds, and Callis (Psychological Corporation, 1951) is the most representative. It is a 150-statement scale in which items are keyed in terms of the authors' own notion of what constitutes desirable and undesirable teacher-pupil relations. A high score is obtained by the teacher who values "a state of harmonious relations with his pupils characterized by mutual affection and sympathetic understanding." By contrast, a low score reflects a teacher who values control for its own sake. He "attempts to dominate the classroom. He may be successful and rule with an iron hand, creating an atmosphere of tension, fear and submission; or he may be unsuccessful and become nervous, fearful and distraught in a classroom characterized by frustration, restlessness, inattention, lack of respect, and numerous disciplinary problems." Examples of statements to which the teacher responds on a five-point scale (strongly agree, agree, undecided, disagree, strongly disagree) are:

13. The first lesson a child needs to learn is to obey the teacher without hesitation.

81. All children should start to read by the age of seven.

149. One should not expect pupils to enjoy school.

A series of single-score scales have emerged from the studies of basic socio-political sets conducted at a number of research centers, with major impetus coming from the work at Berkeley and at East Lansing. The term "authoritarian personality" has become almost a household phrase among behavioral scientists. The original impetus for this work came from the Hitlerian holocaust and the consequent quest for the psychological determination of fascistic behavior. Although the initial enthusiastic reception of results was followed by sober criticism of methods, conclusions, and social naivete of the investigators (6), the relevance these scales have here is that they can serve as possible models for the appraisal of generalized sets that are deemed to be desirable outcomes of an urban teacher-training program or of a curriculum for the lower-class urban child. These generalized sets are of particular importance because there is some evidence that they are related to cognitive styles.

Two of the scales were developed in the Berkeley studies--the Ethnocentrism (E) Scale and the Fascism (F) Scale (1:142, 255-257). The E-Scale consists of twenty items divided into three sub-scales, one dealing with Jews, a second with Negroes, and the third with other minorities. The F-Scale probes more deeply among such variables as:

a. Conventionalism. Rigid adherence to conventional middle-class values. ("One should avoid doing things in public which appear wrong to others, even though one knows that these things are really all right.")

b. Authoritarian submission. Submissive, uncritical attitude toward idealized moral authorities of the ingroup. ("He is indeed contemptible who does not feel an undying love, gratitude, and respect for his parents.")

c. Authoritarian aggression. Tendency to be on the look-out for, and to condemn, reject, and punish people who violate conventional values. ("It is only natural and right that women be restricted in certain ways in which men have more freedom.") (1:228-32.)

In related studies at East Lansing under the direction of Rokeach, a Dogmatism Scale and an Opinionation Scale were developed (14). The study defined dogmatism as "a closed cognitive structure of beliefs and disbeliefs organized around a set of centrally-located beliefs about authority." Examples of items are:

28. In the history of mankind there have probably been just a handful of really great thinkers.

32. Of all the different philosophies which exist in the world there is probably one which is correct.

39. My blood boils whenever a person stubbornly refuses to admit he is wrong.

The Opinionation Scale is a supplement to the Dogmatism Scale, devised to reveal the political-economic direction of the dogmatism. Thus the scale consists of equal numbers of "left opinionation" items and "right opinionation" items. Examples of each are:

1. It's just plain stupid to say that it was Franklin Roosevelt who

got us into the war. (Left opinionation rejection)

21. It's simply incredible that anyone should believe that socialized medicine will actually help solve our problems. (Right opinionation rejection)

11. It's perfectly clear that the decision to execute the Rosenbergs has done us more harm than good. (Left opinionation acceptance.)

31. Any intelligent person can plainly see that the real reason America is rearming is to stop aggression. (Right opinionation acceptance)

Leeds and Cook (11) constructed a questionnaire called My Teacher that is used to determine pupil's perceptions of their teacher. There are fifty items, essentially "simple questions relating to such topics as the teacher's disposition, her treatment of pupils, her teaching, her pupils' esteem, and her sense of humor." Responses to questions are in terms of Yes, No, or Don't Know. Typical questions are:

4. Does this teacher scold the pupils a lot?

6. Does this teacher explain the schoolwork so that you can understand it?

49. Do you like this teacher?

Harris (8), in studying social responsibility in children, developed a fifty-item "Social Attitudes Scale" in which personal reference statements were embedded among those dealing with more general attitudes. Examples of items keyed for social responsibility are:

7. I am hardly ever on time for meals.

28. My teacher often complains because I don't finish my work.

The eight-year study of the Progressive Education Association developed a test on beliefs about school life (Test 4.6, 1940, unpublished). The test contains 118 statements to which students respond in terms of three alternatives: Agree, uncertain, Disagree. Items were grouped by inspection in six major areas of school life:

1. School government: democratic--undemocratic. ("All pupils should be required to vote in student elections.")

2. Curriculum: liberal--conventional. ("It would be a good idea for several teachers of different school subjects to take part in a class discussion with a group of pupils.")

3. Grades and awards: non-traditional--traditional. ("Good school citizenship is encouraged when an honor roll of outstanding pupils is placed on the bulletin board.")

4. School spirit: cosmopolitan--provincial. ("Criticisms of the school government made by first-year pupils should be considered just as carefully as criticisms which juniors and seniors make.")

5. Pupil-teacher relations: cooperative--authoritarian. ("A school is more likely to have better assembly programs when the programs are planned by the principal and teachers than when they are planned by pupils.")

6. Group life: social--class. ("A capable Negro pupil would make just as good a president of the student council as a capable white pupil.")

2. Projective Techniques

a. Construction techniques: Proshansky (13) employed the Thematic Apperception Test method in his study of attitudes toward labor. He intermingled ambiguous pictures of labor situations with the more usual TAT scenes. "Labor" pictures were used if three judges felt they were indicative of neither victory nor defeat for the labor cause. Another example is found in the studies reported by Adorno, et al (1). Ten ambiguous pictures were presented to each subject: six pictures from the TAT and four designed to uncover attitudes toward minority groups. These latter pictures were of "Jewish-looking people in a poor district" and "a young couple in zoot suits."

b. Completion techniques: Shirley Brown (5:17) used the incomplete sentence model to study attitudes toward the Negro. Examples of the items she used are:

1. Skin color . . . .

2. I hate . . . .
3. The K.K.K. . . . .
4. It seems to me that segregation . . . .
5. Racial intermarriage . . . .

Frenkel-Brunswick and Jones (5:18) studied personality and prejudice among school schildren by means of a modified sentence-completion model. They avoided all mention of minority groups, yet provided stereotypic statements. For example:

> Are there some people who are mean? What people?
>
> Some people are poor and it is their own fault? What people?
>
> It would be better if more of a certain type of people were allowed to come into the United States? What people?

J. F. Brown (3) demonstrated the efficacy of the Rosenzweig Picture Frustration Test model in studying intergroup relations. He developed a series of twenty-four cartoon situations, six with Negro content, six with Jewish content, and twelve dealing with frustrations that are independent of racial or religious issues. In the Jewish series, for example, half of the cards depict situations in which a Jew is the source of frustration to someone who is obviously Gentile. In the balance of the cards in this series a Jew is depicted as being the recipient of a frustration or aggressive behavior. For example, one of these cards shows a hotel registration desk. One figure is holding a pen over a book marked "Register Here." Beside this man is a suitcase. The figure on the other side of the counter says, "We take no Jews here. Sorry."

c. Expressive techniques: Hartley and Schwartz (5:17) combined doll play with pictorial material in the investigation of intergroup attitudes of children between the ages of five and seven. They used montage backgrounds to convey a religious symbol (Jewish, Catholic, none). Identical family sets of dolls were placed upon these backgrounds. All sets of dolls were available for use by the subjects in playing out such situations as school bus, birthday party, meals.

d. Measures of Interests (roughly comparable to affective taxonomy categories 1 and 2).

Interest inventories are commonly associated with the school's educational and vocational guidance functions. It is only at decision points, such as graduation from grammer school and graduation from secondary school, that interests are appraised. The two most widely-used instruments--the Kuder Preference Record, Vocational and the Strong Vocational Interest Blank--are based largely on vocational categories. Interest inventories based on the curriculum and the instructional process are few in number and have had very limited use.

The Interest Index (Test 8.2a, Eight-Year Study, Progressive Education Association, 1939) consists of two hundred tasks or activities that are related to some aspect of the secondary curriculum. The student indicates whether he would "like or want to do what the item says," or dislike doing it. Scores are provided for twelve areas of the curriculum plus a score on interest in reading. Items were very carefully constructed to reflect individual differences and the interests of the age group. Examples of activities are:

33. To write letters to public officials urging them to support or oppose a certain course of action.

158. To compare the problems and conditions of today with those of various times in the past.

The same project constructed a Questionnaire on Voluntary Reading (Test 3.32, 1940) that contains one hundred questions covering a variety of aspects of reading. Specimen questions, to which the students respond with a "Yes", "No," or "Don't know," are:

> Do you wish that you had more time to devote to reading?
>
> Do you ordinarily read fewer books during the summer vacation period than you do during a similar period of time while school is in session?
>
> Do you often become so absorbed in your reading of a book that you are almost unaware of what is going on around you?

Sub-scores can be derived in terms of "levels" of reading interest: I. "Likes to read"; II. "Identifies"; III. "Curious"; IV. "Expresses"; V. "Evaluates"; VI. "Relates to life."

Satisfactions Found in Fiction (Inventory H-B2, Cooperative Study in General Education, 1942) consists of 150 statements dealing with the reading of fiction. Scores are derived for a variety of purposes in reading fiction, such as:

> Relaxation and pastime. "Reading myself to sleep."
>
> Escape. "Getting my mind off my troubles."
>
> Philosophy of life. "Gaining a better understanding of the nature of religious experience."
>
> Technical-critical. "Analyzing the quality of the author's style."
>
> Self-development. "Feeling that I am broadening my knowledge of fiction."
>
> Information. "Getting ideas about manners and etiquette."
>
> Associational values. "Being reminded of places I have been."

SECTION III. INPUT VARIABLES

This section describes instruments that yield information on "background" variables that can affect both cognitive and affective educational achievements, as well as long-range life goals, personal and social. These variables may be classified into three broad categories: (1) sociological; (2) socio-psychological; and (3) psychological.

At the sociological level the interest is essentially in social class and in the social and economic factors that define the social status of the individual. The classic index is that of Warner, which he called the Index of Status Characteristics (17:132-155). This measure consists of four sub-scales, the social class level of the individual being estimated by a weighted sum of the scores on the four sub-scales. The social characteristics which constitute the sub-scales are:

A. Occupational level. Occupations are divided into seven prestige levels: (1) professionals and proprietors of large businesses; (2) semi-professionals and minor officials of large businesses; (3) clerks and kindred workers; (4) skilled workers; (5) proprietors of small businesses; (6) semi-skilled workers; and (7) unskilled workers.

B. Source of income: (1) Inherited wealth; (2) earned wealth; (3) profits and fees; (4) salary; (5) wages; (6) private relief; and (7) public relief and non-respectable income.

C. House type. The rating of house type is made on a seven-point scale combining size of house with the condition of building and grounds.

D. Dwelling area. This is a seven-point scale to rate the social reputation of the neighborhood.

When the Warner index is employed to estimate the social class levels of students it is often difficult to obtain information on the last three sub-scales. More commonly used, therefore, as measures of social class are two other variables which have high positive correlations with the total Warner index. These variables are (1) *amount of education* (of father) and (2) *amount of income* (of father alone, generally, but sometimes of father plus mother).

At the socio-psychological level the interest is in delineating the determinants of attitudes and aspirations. An excellent example of an instrument at this level is Stouffer's *Your Educational Plans* (Science Research Associates, 1956-58). In a rather brief thirty-one-item questionnaire Stouffer has succeeded in including a significant number of the variables which the sociological literature indicates as major forces affecting long-range educational intentions. An outline of the questionnaire for high-school students identified these forces:

A. Student plans:	occupational aspirations
	academic aspirations
B. Student school status:	high-school program
	high-school grades
	junior-high-school grades
	primary-school grades
C. Family status and type:	occupational level
	size (number of siblings)
	financial need
	cohesiveness
D. Educational level of influential adults:	father
	mother
	older siblings
	adult model

E. Information concerning best friend:
  - his high-school program
  - his high-school grades
  - his college intentions

F. Others' sentiments regarding student's educational goals:
  - father
  - mother
  - best friend

In two recent doctoral dissertations at the University of Chicago, Dave and Wolf identified and measured environmental (home) process variables that correlate highly with intelligence and cognitive achievement test scores. These process variables and their characteristics are:

A. For Intelligence
  1. Press for achievement motivation
    a. nature of intellectual expectations of child
    b. nature of intellectual aspirations for child
    c. amount of information about child's intellectual development
    d. nature of rewards for intellectual accomplishment
  2. Press for language development
    a. emphasis on use of language in a variety of situations
    b. opportunities provided for enlarging vocabulary
    c. emphasis on correctness of usage
    d. quality of language models available
  3. Provisions for general learning
    a. opportunities provided for learning in the home
    b. opportunities provided for learning outside the home (excluding school)
    c. availability and encouragement of use of books, periodicals and library facilities

B. For Achievement

1. Achievement press
    a. parental aspirations for the education of the child
    b. parents' own aspirations
    c. parents' interest in academic activities
    d. knowledge of the educational progress of the child
    e. preparation and planning for the attainment of educational goals
2. Language models
    a. quality of language usage of the parents
    b. opportunities for the enlargement and use of vocabulary and sentence patterns
    c. keenness of the parents for correct and effective language usage
3. Academic guidance
    a. availability of guidance on matters relating to schoolwork
    b. quality of guidance on matters relating to schoolwork
    c. availability and use of materials and facilities related to school learning
4. Activeness of the family
    a. extent and content of the indoor and outdoor activities of the family
    b. use of TV and such other media
    c. use of books, library and such other facilities
5. Intellectuality in the home
    a. nature and quality of toys, games, and hobbies made available to the child
    b. opportunities for thinking and imagination in daily activities
6. Work habits of the family
    a. degree of structure and routine in the home management

b. preference for educational activities over other pleasurable things

At the psychological level are the ability input variables. Abilities are considered here as aptitudes rather than as achievements, as factors in educational success rather than as effects of educational efforts.

Group tests of general ability provide measures of verbal and quantitative (non-verbal) abilities. The School and College Ability Tests (Educational Testing Service) are the current outstanding example of this type of test. The verbal section consists of sentence understanding items ("select the missing word by deciding which one of the five words best fits in with the meaning of the sentence") and word meanings items ("Pick the word or phrase whose meaning is closest to the word in large letters"). The quantitative section is made up of numerical computation and numerical problem solving.

The multiple aptitude batteries are products of the intensive cataloging of abilities that occupied the attention of factor analysis during the thirties and forties, reading a crescendo in the Army, Air Forces World War II research directed by Flanagan, Guilford, Thorndike, Super, Horst, et al. The chief multiple aptitude batteries and the scores derived from them are:

SRA Tests of Primary Mental Ability. L. L. and T. G. Thurstone. (Science Research Associates, 1946-58). Based on factorial studies.

Verbal

Numerical

Space

Reasoning

Perception

Work fluency

Differential Aptitude Tests. G. K. Bennett, H. G. Seashore, A. G. Wesman (Psychological Corporation, 1947-58). Based on a combination of factorial research results and practical counseling needs.

Verbal reasoning
Numerical ability
Abstract reasoning
Space relations
Mechanical reasoning
Clerical speed and accuracy
Language usage: (a) spelling; (b) sentences

Flanagan Aptitude Classification Tests (Science Research Associates, 1951-56). Based on a combination of factorial studies and job analyses of many occupations, which led to the identification of "critical job elements." The separate tests are:

Inspection
Coding
Memory
Precision
Assembly
Scales
Coordination
Judgment and comprehension
Arithmetic
Patterns
Components
Tables
Mechanics
Expression
Carving
Tapping performance tests

General Aptitude Test Battery (United States Employment Service (1946-62). The most recent form of the GATB uses eight paper-pencil tests and four apparatus tests to measure nine distinct factors:

G - General resoning ability
V - Verbal aptitude
N - Numerical aptitude
S - Spatial aptitude
P - Form perception
Q - Clerical perception
K - Motor coordination
F - Finger dexterity
M - Manual dexterity

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TASK FORCE THREE REPORTS

I. SOME THOUGHTS ON THE GENERAL EVALUATION TASK

The evaluation process may be thought of as involving four main phases:

Phase I: the identification of the specific goals to be evaluated.

Phase II: the selection of instruments and techniques by which progress toward these goals will be evaluated.

Phase III: application of these instruments and techniques at appropriate times and places.

Phase IV: analysis of the results of Phase III to extract all the relevant information they contain in intelligible terms.

While the role of Task Force Three was directly concerned with Phase II, in placing their task in its proper perspective the members of the group touched on a number of points related to other phases of the evaluation problem; their thoughts on these points will be presented briefly here.

Phase I, the identification of goals, was of course the focus of the efforts of Task Force One. Task Force Three regarded the list prepared by this group as only suggestive of the type of goals which might actually be included on the list ultimately adopted for any individual experimental program in any city. Members of Task Force Three did not agree with every item on the list, nor did they feel that all were of equal importance. However, it was not felt that it was the function of Task Force Three to criticize or revise the list; rather, its assignment was to take the list as given and to work with it as it is. It seemed likely that there would be sufficient resemblance between the final list of goals adopted in any one of the projects and this one so that suggestions relevant to the Task Force One list would be valuable.

Members of the Task Force stressed the importance of early identification of specific goals and measurement of whatever relevant baseline data may be needed without delay. This was not meant to imploy that implementation of urgently needed experimental programs for preparing teachers for the culturally handicapped should await the selection or construction of specific instrumentation for assessing the effectiveness of such programs. The Task Force saw no reason why evaluation plans could not be developed concurrently with the early beginnings of such programs. But because the detailed specification of goals would play a vital part in planning the details of an experimental program, it was felt that Phase I of the evaluation should be completed without delay.

Phase II, which is the primary concern of this Task Force, will occupy the major portion of this report, beginning with the next section. At this point it seems appropriate to make explicit two assumptions which underly the approach to the task adopted by the group. It was assumed, first, that the principal focus of the evaluation should be on the classroom behaviors of teachers trained in the experimental programs; and second, that the evaluation should be multi-dimensional in its nature.

There is an intuitive appeal in the idea of measuring the success of a teacher-training program by assessing the effectiveness of the teachers it produces in terms of how much their pupils learn from them. This is a simple concept, it has high face validity, and it appears (at least superficially) to be uni-dimensional.

When a program for training teachers is planned, it certainly has increased pupil learning as its ultimate goal. But before it is possible to plan the details of the curriculum of such a program, it is necessary to specify the kind of teacher who will be most effective. It is necessary, for example, to have a clear concept of the ways in which a successful teacher will behave in the classroom while he is teaching, so that whatever training experiences are necessary to prepare a teacher to behave in these ways can be provided. Suppose such a program is evaluated solely in terms of how much the teachers' pupils learn from them. It is almost certain that, however good the program, its success will be somewhat less than perfect. But such an evaluation will yield no clue as to which aspects of the program have been most successful and which have been least successful; it will tell the organizers of the program nothing about how the program may be improved, or what parts of it might be eliminated without loss of effectiveness.

A sound evaluation program must do much more than yield a yes-no answer to the question, is the program effective? It must indicate how and in what respects each part the training experiences did what it was supposed to do, or failed to do so. A sound, comprehensive evaluation program ensures that a maximum amount of information is gained from an experiment, regardless of how it turns out.

Therefore, Task Force Three assumed that the major evaluation effort should be directed toward assessing the classroom performance of teachers, and that it should be multi-dimensional--should assess the degree to which the teachers tended to approach each specific behavioral goal identified by Task Force One. This did not exclude entirely either the measurement of effects on pupils or of other teacher characteristics suggested by Task Force One as important outcomes; in fact, a substantial portion of the group's efforts were concentrated in these areas. But the assessment of classroom performance was seen as having central importance.

In regard to Phase III, the application of evaluative instruments, Task Force members emphasized one point: that evaluation should be regarded as a continuous, or at least as a multi-stage, process. If the objectives of a project are specified early and in detail, progress toward each one of them can be assessed during the experiment, and information of diagnostic value can be fed back to project personnel while there is still time for remedial action to be taken.

Some project directors may feel that early application of evaluative techniques might contaminate the purity of the assessment of the overall effectiveness of the project. This is not necessarily the case; but even if it were, it seemed to this group that the internal improvement of the program was of greater importance than the technical validity of the evaluation of it. A clean evaluation of such a project would be extremely valuable, and would yield a great deal of much-needed information about teacher education for urban schools; but the need for action to staff the schools as soon as possible with competent teachers outweighs the need for knowledge--in urgency, at least.

Finally, in regard to Phase IV, it seemed important to point out that a multi-dimensional approach to evaluation calls for a multi-variate approach to the analysis of the results. It is vital, of course, that personnel closely involved in the programs receive intelligible feedback of information from the evaluation of the program as a basis for the modifications suggested under Phase II. This does not mean, however, that the statistical treatment of the data must be restricted to analytical methods they can use or fully comprehend. The criterion for selecting a way of analyzing any data should, especially in these days of electronic data processing, be based solely on the amount of information that will be obtained. Modern multi-variate techniques are available which can extract every bit of information from data of the kind that will be collected in these projects. They should be used. Every school-university team in this project has access to both the manpower and the machine facilities necessary. If competent statistical advice is obtained and used, it will be found that the results of even the most complex modern techniques may be made intelligible to the least sophisticated (statistically speaking) member of the research team.

II. MODUS OPERANDI

The Task Force members soon realized that in the limited time available they would not be able to produce anything like a complete evaluation plan. It was decided, instead, to enumerate as many specific techniques which would be potentially useful as possible and present a list of them as source material on which each project could draw in planning its own evaluation. Heavy reliance was placed on the guides prepared by Dr. Openshaw and Dr. Masia, both of these documents are recommended for study by readers of this report.

The organization of outcomes in terms of pupil needs adopted by Task Force One, although well suited for their purpose, was not particularly useful in studying the evaluation problem. A careful reading of the list suggested that possible measurement techniques fell into three types according as they dealt with one of three areas:

1. Teacher behaviors in the classroom
2. Teachers' non-classroom behavior and other teacher characteristics
3. Observable effects on pupils.

Task Force Three organized itself into three sub-groups, each of which took responsibility for one of these three areas and worked as an autonomous group to prepare a taxonomy of measurement techniques. Each sub-group went through the list of outcomes prepared by Task Force One item by item, selecting those which fell within its area and reorganizing them as it saw fit, and then prepared its suggested list. These lists were then briefly reviewed and approved by the Task Force as a whole. Inclusion of any particular instrument or technique on a list of suggested instruments should not be interpreted as constituting an endorsement or recommendation of that instrument by the Task Force. Time did not permit any screening of suggested measures. The next three sections of this report will consist of the reports of the three sub-groups.

III. CLASSROOM BEHAVIORS OF TEACHERS

The committee which worked in this area began its task by regrouping those items on the Task Force One list identifiable as observable classroom behaviors into clusters of related items under four main headings:

1. Methods of Instruction
2. Materials of Instruction
3. Classroom Climate
4. General Manner and Appearance of the Teacher.

The clusters were then referred to the various techniques of analysis of classroom behavior reviewed by Dr. Openshaw and those scales or categories scored or recorded in each technique which seemed most closely related to each previously identified cluster of behaviors were listed. In addition, use was made of three techniques not reviewed by Dr. Openshaw. References to these techniques are included here for the convenience of readers who may wish to examine them at first hand:

> Cornell, F. G., Lindvall, C. M., and Saupe, J. L. *An Exploratory Measurement of Individualities of Schools and Classrooms*. Bureau of Educational Research, College of Education, University of Illinois, Champaigne, Illinois, 1952.
>
> Perkins, Hugh V. "A Procedure for Assessing the Classroom Behaviors of Students and Teachers." *American Educational Research Journal*, *1*:249-260, 1964.
>
> Medley, Donald M. and Mitzel, Harold E. "A Technique for Measuring Classroom Behavior." *Journal of Educational Psychology*, 49:86-92, 1958. (This paper describes the instrument referred to below as "OScAR 2"; the instrument referred to as "OScAR 3" is reviewed by Dr. Openshaw.)

In reading the rest of this report, readers should bear in mind the fact that two different procedures for studying classroom behaviors are represented. Some researchers have proceeded by first recording the verbal behaviors in the classroom on tape, then transcribing the tapes, and finally coding the transcribed behaviors. This approach makes possible a highly detailed and complex classification of the recorded verbal behaviors. It is exemplified by the studies of Bellack and Smith.

Other investigators have proceeded by sending observers into the classroom to classify behaviors "live." This approach does not usually permit as detailed an analysis of behavior as does the first one; on the other hand, the observer has many more cues such as tone of voice, timing, facial expression, and gestures to aid him in correctly interpreting the behaviors. Flanders, Perkins, and Wright and Proctor exemplify this approach.

Techniques differ also with respect to the scope of behavior they attempt to code. Most of the techniques herein referred to record and classify only verbal behaviors--as, for example, do Flanders and Withall; others record at least some other aspects of behavior, such as the amount and kind of grouping, the materials used, the movement of teacher and pupils. Examples of the latter include Cornell's technique and both OScARSs.

The various instruments also differ with respect both to the amount of sophistication and the amount of special training needed by the person using the instrument. The Cornell and Withall procedures represent relatively easy systems to learn, and those of Smith and Wright and Proctor represent schemes which it would take long study to master.

These factors may have to be considered in selecting instrumentation for any particular project, but the main consideration will, of course, be how closely the measurements yielded resemble those needed in evaluating the project. In most instances, the fit is not very close; the purposes for which these instruments were constructed were as a rule very different from the purposes which readers of this report will need them for. In most of those cases in which an existing technique is adaptable, at least some modification in the scoring procedure, and in many cases some changes in definitions of categories, will have to be made.

Decisions about such revisions will require careful consideration and study beyond what the Task Force had the time or the information to undertake. Notations have been included, however, indicating those instances in which such revision seemed most necessary or profitable.

Under each of the four main headings a cluster of quotations from the Task Force One report is presented, under the sub-heading: "Areas of Behavior." Each such cluster was chosen to define a sub-area which might represent a specific goal and be measured with a single scale. Under the sub-heading "Instruments" are listed the techniques which are judged to yield information related to the behavior area at the left, and under "Related Scales or Categories" are listed the specific relevant sections of the instrument.

Figure 4

A TAXONOMY OF TECHNIQUES FOR ANALYZING TEACHER BEHAVIOR IN THE CLASSROOM

RELEVANT TO THE BEHAVIORS TESTED BY TASK FORCE ONE

AREAS OF BEHAVIOR	INSTRUMENTS	RELATED SCALES OR CATEGORIES
I. Behaviors related to Methods of Instruction		
(1) Order classroom activities to assist pupils in understanding the concept and importance of ordered classroom organization and help them move toward more self-directed experience, e.g., use pupils' values and culture in moving toward another culture. Inculcate values such as time pressure, cleanliness, grades in school, test-taking. Require that necessary equipment, such as pencils and notebooks, be brought to class each day. Have classroom well-ordered and have traffic routine work out in advance.	Cornell	Climate - Pupil
	Hughes	IA6. Structure - public criteria IBI. Regulate - open IVE. Structure turnback
	Miller	Setting Expectations - Implementing action
	OScAR 2	Traditional Pupil Activities
	OScAR 3	Classroom order
	Perkins	LISWAT: REWR
	Thelen	3.G Adult frame of reference
	Travers	2.4 Controlling, 4.1 Management
	To be constructed	Check list or category systems for behavior specifically related to development of these values in pupils
(2) Set tasks and goals and provide for goal-setting and task achievement and task failure Maintain high standards of educational achievement and manifest no condescension. Do not accept inadequate work or lower standards. Demand more of the students than they are giving in their work behavior. (This can be easily adjusted to the individual child.)	Bellack	Assignment, Evaluative Process
	Hughes	IC. Standard Set; IIB,C. Imposition
	Miller	Providing Focus, Appraising Effort
	OScAR 3	Neutral Rejection; Problem Structuring
	Perkins	4A. Stimulates thinking
	Thelen	IA. Activity-centered discussion
	Travers	3. Setting of goals and standards
	Withall	3. Problem Structuring.
	To be constructed	A new schedule or a way of scoring one of those above to reveal degree to which teacher sets appropriate standards

AREAS OF BEHAVIOR (Cont'd)	INSTRUMENTS	RELATED SCALES OR CATEGORIES
(3) Demand, facilitate, and commend pupil achievement in and out of school. Exercise care in testing so that a degree of success can be achieved. Assign homework regularly and fairly and check the children's work.	Bellack Flanders Hughes Miller OScAR 2, 3 Perkins Travers Withall	Rating - Positive, Admitting, Repeating Praises, Encourages IV - Develop Content Appraising Effort Supportive Teacher Behavior 2, 2A - Praises, nurtures 1.6. Reinforces Pupil Supportive Behavior
(4) Involve pupils in preplanning classroom activities and make the advantages of preplanning obvious to students.	Hughes Miller OScAR 3 Travers Wright and Proctor To to constructed	IA1, IB1 - Structure, Regulation Open Open Structure Pupil Initiative 3.1, 4.2. Negative control 2.5, 2.6. Independence Items or categories more directly relevant to preplanning; or possibly a pupil questionnaire
(5) Provide a wide-range of experiences for pupils with ample opportunities for consolidation around significant experiences; set aside free time for students to pursue any of the rich variety of activities and materials that should be available in the classroom. Provide educationally relevant stimuli--a variety of experiences that have continuity and sequence.	Bellack Cornell Miller OScAR 3 Perkins Smith Travers Wright and Proctor To be constructed	Passion Variety Providing Focus, Development Informative Teaching LISWAT, NIAC, WOA, REWR Passion 1. Informing A, B. Content, Process Frames Better ways of scoring existing instruments
II. Behaviors related to Materials of Instruction		
(6) Encourage children to speak at greater length than usual in their milieu. Emphasize communication skills. Encourage the child to speak out about his life and experiences.	Bellack Flanders Hughes	Soliciting 4,8,9. Student talk; questions Matrix areas G,H,I III. Facilitating; IVC. Stimulate VIC. Encourage

AREAS OF BEHAVIOR (Cont'd)	INSTRUMENTS	RELATED SCALES OR CATEGORIES
(6) (Cont'd) Comment in such a manner that the child feels that he, too, can offer something to the general knowledge of the classroom. Provide activities that give the child frequent opportunities to write. Work persistently on study skills in connection with subject matter	Miller	Appraising Effort
	OScAR 3	Activity; Pupil Statements, Questions, Eliciting
	Perkins	HIAC, SWT, REP
	Travers	1.3. Cues, 1.5. Questions
	Withall	Pupil Supportive
(7) Establish activities which allow the students the opportunity to work independently of direct teacher control. Give students a chance to move about freely wherever possible in the classroom; also give them many opportunities to speak orally to the teacher and to each other. Set climate in classroom permitting children to dissent in proper manner.	Cornell	Initiative; Grouping
	Flanders	I/D Ratio
	OScAR 2	Autonomous groups; Freedom of Movement; Pupil Leadership Activity
	OScAR 3	Pupil Initiative
	Perkins	WOA, SWP, SWT, SF, GRP, RES
	Thelan	2S, I - Subjective, Impulsive Concern
	Travers	3.1, 4.2 - Pupil choice, delegated responsibility
	Wright and Proctor	Attitude Frame - 1, 2. Curiosity, Independence
(8) Develop and use sense experience and motor activity orientation in instruction without neglecting intellectual activity. Employ as many senses as possible. Use simple, concrete construction and manipulative materials and audio-visual aids as frequently as possible.	Cornell	Variety
	OScAR 2	Audio-Visual Materials
	OScAR 3	Use of Blackboard
	To be constructed	A check list of types of activity similar to Cornell or OScAR 2 lists
III. Behaviors related to Classroom Climate		
(9) Demonstrate a regard for and an interest in pupils as individuals. Be available and approachable. Exert positive influence by individual interaction with students. Show interest in what children have to say. Increase time spent listening to a child, encouraging him to speak about his interests and problems. Encourage oral expression of frustration and insight.	Cornell	Climate - Teacher
	Flanders	1. Accepts Feeling, Criticizing (neg.)
	Hughes	VI & VII - Affectivity
	OScAR 2	Emotional Climate
	OScAR 3	Consideration
	Perkins	2A. Listens to, nurtures pupil
	Thelen	4. Emotionality
	Travers	5. Affiliation
	Withall	2. Accepting, Clarifying

AREAS OF BEHAVIOR (Cont'd)	INSTRUMENTS	RELATED SCALES OR CATEGORIES
(10) Vary teaching techniques and classroom procedures in relation to attention span and need of pupils. Emphasize short lessons and short examinations. Change the pace of classroom instruction in order that students are not allowed to sit too long, read too long, or engage in any one activity too long.	Bellack Cornell Flanders OScAR 3 To be constructed	Pace Variety Flexibility Change of Activity Observational procedure for timing duration of activities and pupil restlessness or involvement in lesson. (Perhaps a device similar to the one used by Bales.)
(11) Individualize instruction to take into account the vast differences which exist among pupils within a sub-group. Take into account the child's "learning style." Teach the children, in many instances, on a one-to-one basis. Recognizes differences and weaknesses but stress in instruction the strengths and likenesses of the cultural backgrounds from which the children come.	Cornell OScAR 3 Perkins To be constructed	Differentiation Imaginative Teaching; Individualization WOA, IND, GRP, SUPV A better checklist than either Cornell's or the one on OScAR 3 to measure individualization.
(12) Help pupils learn by indirect instruction as well as by direct methods.	Flanders To be constructed	I/D Ratio A simple scheme for comparing number of ideas developed from pupils with number emitted by teacher
IV. Behaviors related to general appearance and manner of the teacher		
(13) Demonstrate willingness to accept responsibility and exercise authority. Pupils must sense that the teacher has fiber and strength, even if it be the quiet kind that is reflected in merely a disapproving gaze. Do not tolerate poor behavior: act promptly.	Flanders Hughes Miller OScAR 3 Perkins Travers Withall To be constructed	Direct Influence Controlling Setting Standards, Regulating, Reprimands Presence 4A. Directions; LDR 2. Controlling 5. Directive Statements Some way of scoring the above to

AREAS OF BEHAVIOR (Cont'd)	INSTRUMENTS	RELATED SCALES OR CATEGORIES
(13) (Cont'd)		discriminate the teacher with authority from the "authoritarian" teacher would be needed
(14) Exhibit verbal and non-verbal behavior with appropriate patterns of loudness, patterns or amounts of teacher talk.	Cornell OScAR 3 To be constructed	Competency Presence A rating scale, which is probably the best way to get at this
(15) Utilize a highly dramatic approach to capture interest and offset the tendency of pupils to "tune out" the noisy, confused world in which they live. Pace activities quickly to sustain interest and increase the child's attention span.	To be constructed	A rating scale which would distinguish this from (14) above would be difficult to construct. Imaginative Teaching in OScAR 3 tried to get at this with indifferent success

IV. TEACHERS' NON-CLASSROOM BEHAVIOR AND OTHER CHARACTERISTICS

This sub-group decided that the best approach to its task was first to go through the Task Force One report item by item and decide which items fell within its province. It was realized that there was considerable overlap between classroom and non-classroom behavior; that is to say, many activities carried on in the classroom could also be carried on outside it. It soon became clear that most of the items fell into one of four broadly-defined categories as follows:

1. showing an interest in pupils (either attitude or non-classroom behavior);
2. "examine oneself" as indicated by changing of attitude or "self image";
3. knowledge of culture and background of community; i.e., the ecology of the teaching situation; and
4. awareness of the problem (and the possibilities) of involving adults--which again could be either an attitude or non-classroom behavior.

However, for purposes of this report, it was found more useful to order the items according to data-gathering methods which might be used. This section of the report has been organized, then, in terms of the following five areas:

1. Measures of Teacher Attitudes
2. Measures of Specific Teacher Proficiencies
3. Measures of Pupil Perception of the Teacher
4. Sources of Information Other Than Teachers
5. Measures of the Teacher's Self-Image

1. Measures of Teacher Attitude. Many of the objectives listed in report of Task Force One are worded in terms of what the teacher will do in the classroom. Objectives of this type can be assessed through the use of

observational procedures. However, because of the overall emphasis of project papers (Task Force reports, critiques, etc.) on the importance of teacher attitudes, it is felt that it might be worthwhile to obtain direct measures of teachers' expressed attitudes toward some of these classroom practices. This may, for example, permit a study of the relationship of attitude to practice and in this way facilitate the testing of meaningful hypotheses. Furthermore, if teacher attitudes are found to be related to subsequent performance, they would provide a convenient measure of the effectiveness of limited aspects of teacher preparation programs. For these reasons it is suggested that one evaluation procedure that should be given consideration would involve the development of special attitude scales (Procedures for this are discussed quite fully in Edwards, Allen A., Techniques of Attitude Scale Construction). This might be done in connection with such objectives as the following, quoted from the Task Force One report:

> Demonstrate a regard for, and an interest in, pupils as individuals. (Express a positive attitude toward the importance of a teacher showing a concern for pupils as individuals.)
>
> Demand more of the students than they are giving in their work behavior. (Express a positive attitude toward the desirability of making exacting but reasonable demands concerning pupil work.)
>
> Examine self and relate more productively to pupils' culture.
>
> Manifest emotional stability of a positive nature--an attitude of positiveness toward life; optimism; cheerfulness; outgoing; stable.
>
> Recognize that the students are far more important than the subject matter. (Express a positive attitude toward the importance of the pupil.)

In some cases it may be profitable to develop a short attitude scale to measure one of the objectives alone. In other cases it may be meaningful to combine objectives under some broader dimension of attitude. However, it is the feeling of the sub-group that where specific attitudes can be considered as goals of teacher training programs, scales will have to be developed to measure the degree of achievement of these attitude goals. Existing published instruments do not appear to offer much promise in meeting this need.

2. Measures of Specific Teacher Proficiencies. A limited number of objectives found in the Task Force One report refer to specific proficiencies that a teacher should possess. To the extent that any project would deem objectives of this type important they could be evaluated through proficiency or achievement tests. In some cases this would require the development of special tests while in other cases published tests might be used (e.g. In measuring certain aspects of proficiency in a foreign language). Examples of objectives dealing with teacher proficiency include the following:

> Be knowledgeable about the background of people in the area.
>
> Have knowledge of and make suitable use of an appropriate foreign language.
>
> Sensitize themselves to different language systems of children in order to gain an understanding of the community's mores.

(Note the emphasis placed on a teacher having knowledge about the home and community environment.)

3. Measures of Pupil Perception. Certain objectives in the Task Force One report deal with teacher characteristics or practices that can be measured most validly through the perceptions that the pupil has of the teacher. These objectives include:

> Demonstrate a regard for an interest in pupils as individuals.
>
> Convey to the child your confidence that he can achieve, that

he can accomplish. Win his confidence in the teacher and the school.

Accordingly, it is suggested that evaluation procedures should consider developing a measure of pupil perception or utilize existing measures. Examples of these measures would include:

A. The LBDQ Modification (as described in Smith & Hudgens Educational Psychology).

B. Something similar to Leeds and Cook, My Teacher - used to get a pupil's perception of his teacher (see Masia paper, or Medley and Klein's My Class Inventory).

C. See also: "High School Study" developed by the Bureau of Educational Research, Michigan State University.

It is recognized that obtaining this type of information may be difficult because of limited communication skills on the part of the students.

4. Sources of Information Other Than Teachers. For some aspects of evaluation, information can be gathered from sources other than teacher subject respondents. Other sources of information are:

(a) Parents (by interview)

Most generally, to "involve parents in the educational development of their children." Items might include:

Encourage the parents to come in as passive observers as one means of developing understanding.

Encourage classes for adults during school hours. (In this way the children are taken care of.) Emphasize areas of home management.

Have parents help more at school, e.g. (help in putting up bulletin boards, collect milk money, assorting papers, etc.)

Involve mothers in a Button, Thread and Scrap Material drive and distribution of clothing that comes to school for needy children.

Support the establishment of nursery classes in disadvantaged areas.

Extend and expand background experience of parents as well as children. If space permits, invite parents to come on field trips. Many parents never will have been to a zoo, museum, or an aquarium. Parents frequently will talk more freely on a field trip away from the formal school conferences.

Encourage, suggest and urge the parents to "speak up . . ." to make their wants known to the principals and Board of Education concerning various matters that they speak with the teachers about.

Help adults learn how to interact with and how to play with children. Develop with groups of children and adults in the community, plans for activities that involve social relationships of various kinds. Out of these experiences help children to learn to make the necessary value judgments in forming and continuing desirable relationships in life.

Help adults learn how to read to children.

(1) Stress oral reading.

(2) Stress helping children to listen.

There are at least four necessary precautions in this area.

(1) Additional items may be necessary to get an adequate overall measure.

(2) Some of these items may be peripheral or irrelevant.

(3) Some of these behaviors may be so seldom encountered as to make measurement unprofitable.

(4) Results must not be interpreted except in light of the school organization and norms where the subject is teaching.

It should be possible to measure some of the objectives included under this category by application of a structured interview. Construction of interview protocols is straightforward and described in standard texts.

(b) School Staff (by interview):

Activities outside the classroom, involving other teachers or staff members. Items might include:

Provide interaction for the pupils with other teachers and with adults in the community through sequential exchanges.

(1) Work cooperatively with other teachers and community groups in developing an all-fronts attack on problems of educating children.

(2) Share problems and be ready to utilize the help that can be offered by other members of the school staff such as the counselor, teachers of other subjects, the school nurse, and the librarian . . . .

Homemakers, professional people and teachers work cooperatively on a Family Life Education Project . . .

Welcome other organizations, agencies, and community workers as partners in education: social workers, parks and recreational personnel, and so forth.

(c) Pupils (probably in conjunction with measures of pupil perceptions concerning other teacher behaviors, discussed above):

Develop and use, whenever possible, feedback techniques for securing information from children.

(1) Exercise care in testing so that a degree of success can be achieved.

(2) Utilize pupil-helpers who are granted the privilege of entering the building several minutes early to assist the teacher.

(d) School Records

(1) Duration of employment in a given school as an indication of "commitment" or "job satisfaction."

(2) Frequency of absence (a la Mayo), as measure of "job satisfaction."

This information would be useful only if there was accompanying information on appointments and transfers.

The immediate purpose of these data lies in their use as indications. Methodologically, the procedure would be analogous to an actuarial study; "career expectancy" tables would be similar to the actuaries' "life expectancy" tables. The procedure has been described by actuarial specialists. It is relatively simple and quite parsimonious in its assumptions. Mayo describes the tabulation of absences in his World War II studies. (It is pertinent to note that all the Task Force members agreed that certain statistical data regarding teachers would be of the utmost importance.)

5. Measures of the Teacher's Self-Image. The recurrent use of the term "examine oneself" in Task Force One report may (but need not) be read as involving a changing view of self. There is increasing evidence (research in progress at Michigan State; Iannaccone, Theory into Practice) that important outcomes of student teaching and internships are in the form of Masia's category "5". It is hypothesized further that an appropriate teacher self-image is a requisite for "warm" and "controlling" behaviors. The suggested measurement would be an adaptation of the semantic differential. "TATSO", under development by B. Wright (University of Chicago), may be directly applicable.

Generally, a main objective of this demonstration project is to provide teacher candidates with the kinds of experiences that would most appropriately prepare them for successful and satisfying teaching of disadvantaged children. There are certain statistical, administrative data regarding teachers that are obviously related to this most general statement of purpose. These can serve as overall indicators of whether the program as a whole is having a significant, practical impact in this area.

One expected and observable consequence of program impact would be a reduction in the frequency of teacher transfer requests from schools in disadvantaged areas to schools outside the disadvantaged area. Presumably, teachers who are more successful and satisfied with teaching here would not desire to transfer out of these schools as frequently. Records pertaining to teacher turnover rate would afford direct evidence of the extent these teachers fulfill this expected consequence.

Other factors being equal, one would expect absenteeism to relate in some way to the general morale and spirit of teachers. Improvement in morale would surely be a reasonable consequence of teachers being better prepared to handle school situations. It is also proposed to measure the job satisfaction of the student during the intern period. A morale instrument, such as that developed by Griffiths or Ryans could be administered to the student-intern in the demonstration and compared with a sampling from other beginning teachers in schools in depressed areas.

Significant improvement in the two criteria of turnover rate and absenteeism for teachers would attest to a self-evident, obvious improvement in the teacher-work situation. If clearly associated with teachers who have completed the special demonstration, teacher-education program, such improvement can be reasonably related to this program.

Judgment as to significant effects in these areas would be assisted wherever possible by comparison between teachers completing the demonstration program, and teachers in the schools of the impacted, economically depressed areas of the city who graduated from regular teacher-education programs.

V. OBSERVABLE EFFECTS ON PUPILS

The task of the third sub-group was to suggest ways of measuring those specific outcomes suggested by Task Force One which would be manifested in observable effects on pupils. The sub-group began its work by re-phrasing Task Force One's six major needs in terms of four major aspects of the school curriculum which formed a more tractable basis for ordering the discussion of measurement techniques, as follows:

1. Basic skills. This corresponds to IV of Task Force One, and is hereby rephrased:
   The student needs to develop classroom skills.
2. Personal social development. (I) The student should see himself as an accepted and contributing member of the immediate and broader groups of which he is a member. (V) The student should develop an increased ability to handle day-to-day problems.

3. Desirable school behaviors. (II) The student should recognize and develop those values that allow him to operate successfully within the school environment.
   (VI) The student should develop positive attitudes towards schools and schooling.

4. Community/environmental understanding. (III) The student should have an increased awareness of the existence and function of governmental and cultural institutions and agencies in his community.

The following pages describe the four major curriculum areas listed above. Under each curriculum area there are three divisions:

Evidences (A) refers to specific areas of development that the subgroup feels can be observed and measured.

Measures (B) are the general measures by which (A) can be assessed.

Specific Instruments (C) contain suggestions of specific instruments that can be used, or that are capable of construction, to assess the progress of the evidences listed under (A).

Figure 5

1. Basic Skills

A. Evidences	B. Measures	C. Specific Instruments
1. Subject matter attainment	1. Standardized Tests	1. Sequential tests of educational progress Iowa Tests of Basic Skills Iowa Tests of educational development To be constructed: tests of higher level mental processes not measured by current standardized achievement tests. Such high level processes are: evaluative abilities, analytic abilities, abilities to interpret, translate and extrapolate
2. Knowledge of how to learn	2. a. Learning skills test	2. a. Brown-Holtzman Study Habits Inventory SRA Achievement Series: Work-Study Skills Test - test of interpretation of data (a la PEA Test 2.71)
	b. Teacher-pupil behavior, Interaction Analysis	b. Flanders Technique of Interaction Analysis (to determine extent to which pupil learns classroom participation, etc.) Perkins categories of pupil behavior

2. Personal-Social Development

A. Evidences	B. Measures	C. Specific Instruments
1. Volunteers for classroom activities	1. Rating scale or check list or activities list, etc.	1. To be constructed
2. Talks freely about self, family, community, etc.	2. Structured interview, observation during Sharing, Show & Tell, etc.	2. To be constructed
3. Increases level of aspiration over period of time	3. Change in educational plan, change in vocational plan, measure of level of aspiration	3. Stouffer's Your Educational Plans: Selected items relative to vocational aspirations
4. Participates in sub-groups within school structure: a. Classroom b. Playground c. After-school activities	4. Record of participation. Observational sociogram. Photographs	4. To be constructed: School Activities Check List
5. Meets day-to-day problems; ability to withstand change	5. Social Maturity Scales; degree of failure in new situations; e.g. classroom, playground, etc.	5. Vineland Social Maturity Scale
6. Contributes ideas to group and is able to withstand group pressure when appropriate	6. Measures of group interaction	6. Russell Sage Social Relations Test. To be constructed: Index on Inventory of Adaptations to the new school setting

3. Desirable School Behaviors

A. Evidences	B. Measures	C. Specific Instruments
1. Awareness of existing rules, regulations, and expectations of behavior in school milieu	1. Ability to answer questions about school rules	1. Test of Knowledge of School Rules - to be constructed
2. Willingness to accept and abide by rules. Response to teacher direction	2. a. Record of infractions (negative) b. Earning of merits, service insignia, etc. c. Dressing for P.E. (secondary)	2. To be constructed: Situational tests to determine whether student displays willingness to accept rules or whether his behavior is acquiescent
3. Participation in activities such as student council, clubs, service organizations, science fairs, etc	3. a. Activities index. b. Contribution of skill acquisition to self-concept	3. To be constructed: School Activities Check List

4. Community-environmental understandings

A. Evidences	B. Measures	C. Specific Instruments
1. Knowledge of existence of governmental and cultural agencies	1. Simple test	1. To be constructed: Test of Knowledge of locating, purposes, and contents of institutions such as museums, libraries, concert halls, theatres, etc.
2. Use of same agencies	2. a. Record of use and orientation b. Test of civic responsibility	2. To be constructed: Inventory of interests in and attitudes toward community institutions
3. Experiences external to school	3. Record of field trips	3. To be constructed
4. Learns how to get (and give) directions for finding specific agencies	4. Word association test	4. To be constructed

VI. FUTURE STEPS RELATING TO EVALUATION

The Task Force members, as this report has already indicated, believe that the School-University Teacher Education Project is in essence a demonstration proposal which should be launched as quickly as possible in the participating cities. The urgency of the situation dictates immediate action which should not be deferred until suitable evaluation procedures are developed.

Efforts to develop suitable measurement instruments of this scope and potential should be intensified concurrently with the establishment and operationalizing of the training centers. It was the feeling of the group that a suitable battery of measurement instruments might either be synthesized from existing instruments or created. It was suggested that the cities be provided with consultants in the area of measurement and evaluation as they developed their proposals.

It was recommended that an effort be made by the cooperating city school systems and institutions of higher education to establish, perhaps through the Project staff, a mechanism through which some commonly accepted measurement technique might be utilized in those cities which desired at least a modicum of central evaluation. The advantages of creating a central test construction group were discussed. This group, if organized quickly, could be of inestimable value in working with the cities in the evaluation aspects of the Project. Such a body might also develop, in not too long a period of time, a central measurement instrument specifically designed for the disadvantaged urban milieu.

The Task Force members felt that the Project offered a unique opportunity for central evaluation. The large and significant sampling of teachers and students which the Great City school systems could provide would supply huge amounts of data. If a central office data bank were established, information could be stored and retrieved in a single place with computer facilities available. Each city would be free to use the central data bank as it deemed appropriate and the economy that could be effected by the centralizing of data would be considerable, for the participating school systems.

SOME SUGGESTIONS FOR EVALUATING THE OUTCOMES OF THE SCHOOL-UNIVERSITY TEACHER-EDUCATION PROJECT

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Bertram B. Masia, University of Chicago
Donald Medley, City University of New York

The primary purpose of the School-University Teacher-Education Project is to seek to improve the education of culturally disadvantaged children by raising the quality of teachers of these children. This would initially require central changes in teacher-education programs.

By definition, such a project would make a substantial contribution to a secondary purpose, namely, an increase in our knowledge of characteristics of successful teacher-training programs for teaching all children.

Any teacher-training effort that is based on an internally consistent plan should make provision for three types of questions regarding program effectiveness. First, the training effort should be evaluated in the sense that information relating to the amount of success of the program can be identified. Second, the training effort should be diagnostic in that one can make judgments about the relative effectiveness of different aspects or parts of the training program. Finally, the training effort should be heuristic, that is, the information derived from the program appraisal gives us distinct clues as to the why of the differential results obtained.

A program of evaluation with multiple goals like these must begin at the start of the project and operate continuously throughout. More importantly, it must be planned as a unit from the beginning. The measurements obtained must be objective, detailed, and closely integrated into an overall plan. It should be obvious that a properly constructed plan will be complex in its nature and will require complex techniques of analysis. This should not disturb anyone very much; the technology of educational research is well enough advanced to handle the program of evaluation we are proposing. The natural desire one feels to preserve sufficient simplicity and design so that the evaluation program can be fully understood by persons not particularly well-trained in the details of statistical analysis should not lead us to fall into the trap of attempting to study complex phenomena with simple devices. The universities and school systems involved in these programs already have available in their present staffs sufficient sophistication to handle much more elaborate evaluation programs than the one we are about to propose. It would be foolish not to take advantage of such strengths.

The primary consideration is this: the outcomes of a program for preparing teachers can be evaluated most directly by comparing classroom performance and other relative characteristics of teachers prepared in the program with those of teachers not prepared in the program. Of course, the ultimate criterion would be the effects the teachers have on their pupils, the amount the pupils learn. There are two serious objections to using a criterion of pupil learning. First, such a criterion would be neither diagnostic nor heuristic, although it would be evaluative. More seriously, there is considerable doubt as to how successful such a criterion would be in evaluating the outcome of a teacher-education program. Correlations between teachers' classroom behaviors and other characteristics and the amounts pupils learn from them have been found to be low. Even if an experimental program did succeed in developing teacher characteristics that would produce maximum pupil learning, it is doubtful whether sufficient difference in pupil achievement could be detected to reveal this fact. Fruitful results are much more likely to be obtained if the evaluation of the program is based on the measurement of the degree to which it produces those teachers behaviors and other characteristics it is designed to produce. The evaluation plan we are recommending attempts only to achieve this end. In addition to the data suggested in the plan below, it would be interesting to collect information about pupil achievement, but it would not be necessary.

Under the assumptions stated in the previous two paragraphs, it is clear that the criterion of effectiveness of an experimental program must be based on a clear specification of the kind of a teacher the program is intended to produce: that is, a description of the kind of teacher he will be. Task Force One has made definite recommendations as to the type of teacher to be produced. These recommendations, however, are made in the form of specific behaviors ordered in terms of goals of education of handicapped children and expressed in terms of psychological needs of those children. Before an attack can be made on the problem of measuring the degree to which a teacher fits this model, it is necessary to order these specifics into measurable dimensions. This is a task that must ultimately be done by the people responsible for each experimental program. We have, however, made a content analysis of the recommendations of Task Force One and ordered them into dimensions that seem to us most likely to be measurable. The results of this analysis are shown in Supplement A and are used for illustrative purposes in the body of this report. This use does not necessarily represent an endorsement of the specific categories, nor is there any intent to urge their use upon any of the individual projects. It does seem essential to us, as will be apparent on a reading of the report, that this (or a similar system) must be constructed as a basis for the entire evaluation plan of a project.

The basis of an evaluation plan for a particular experimental program will be a list of areas or dimensions of teacher behavior. It is hypothesized that teachers trained in the experimental program will be higher on all of these dimensions than teachers not trained in the program, and further that the amount of success the program has had with an individual teacher will be measured by his relative standing on all of these dimensions. The evaluation should begin, then, with an attempt to assess any predispositions the individual teacher-education student has to exhibit these characteristics before he begins training. Measurement of such pre-existing conditions will greatly increase the precision with which it is possible to measure the effect of the program on the student.

The evaluation should proceed by attempting to measure the amount and kinds of experiences a student has relative to each of these dimensions, his progress toward the development of these characteristics during training, and, finally, the degree to which he achieves these characteristics by the end of the training program. It does not take much study of this plan to realize that an effective implementation of it will require that most, if not all, of the instruments be constructed specifically for the study. It is clear that few, if any, appropriate instruments exist in most of the areas. The use of instruments constructed for different purposes than the ones for which they are needed in this study involves perils associated with very limited validity. However, the amount of instrument construction that would be necessary is formidable; perhaps too much so to be practical in the case of an individual project.

This problem is particularly acute in the area of measurement of outcomes of training. Although there has been much more study of the teaching process during the past ten years than in any previous period in the history of educational research, the most related studies have not attempted to measure teacher behavior so much as to analyze it for the purpose of obtaining a better understanding. However, we have prepared in outline form an inventory of what few measurement techniques do exist in this area (Supplement B).

In preparing a proposal for an experimental program, probably the best strategy would be (1) to specify the areas and types of instruments to be used, (2) to conduct a search for the best instruments available for each purpose, (3) to construct as many instruments as possible, and (4) perhaps to admit that the evaluation will be somewhat incomplete. It seems to us that one of the large problems facing the School-University Teacher-Education Project lies in this area of instrumentation. There are definite possibilities for cooperation between projects, sharing of instruments, and the like. There is not time to solve these problems before submitting the proposals, but they should be faced soon afterwards. These remarks are intended to offer some general guides to the development of evaluation procedures as part of the program proposal.

Any design to evaluate a teacher-training program should make provision for collecting the major dimensions of information represented in Figure 6. As identified before, there are three such dimensions: (A) information pertaining to characteristics of the trainee existing prior to the beginning of training; (B) information collected during the period of training, both about the program itself and about trainee achievements; (C) information relating to those proficiencies that the training program attempted to develop exhibited by the trainee after training is completed.

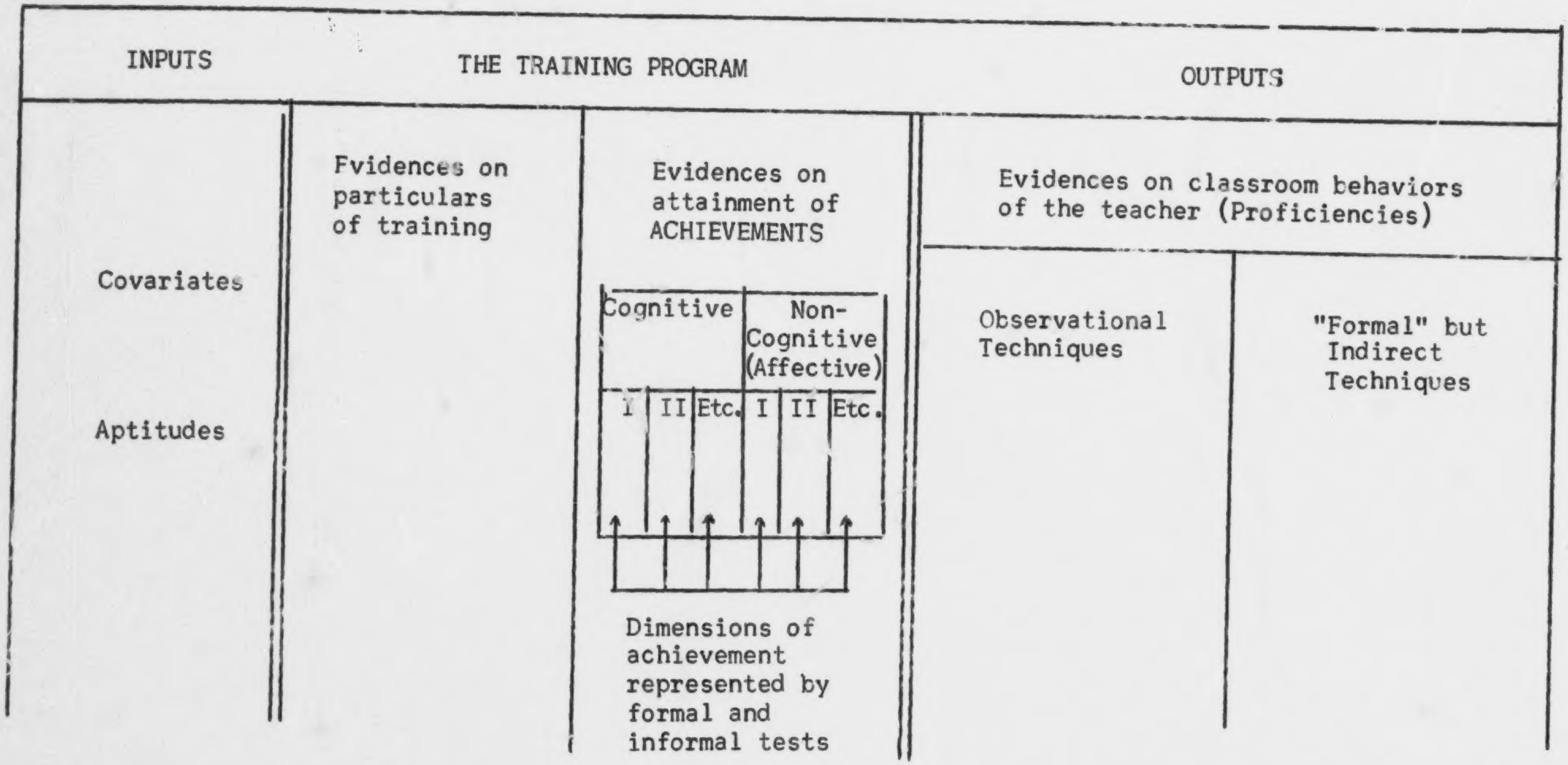
More detailed discussions of each dimension of information are presented in the following sections.

Inputs: Covariates and Predictors

Prior to the beginning of the training program, information should be assembled on at least two classes of data: covariates and aptitudes.

Figure 6

ASPECTS OF EVALUATIVE DATA


INPUTS
THE TRAINING PROGRAM
OUTPUTS
Covariates
Aptitudes
Fvidences on particulars of training
Evidences on attainment of ACHIEVEMENTS
Cognitive
Non-Cognitive (Affective)
I
II
Etc.
I
II
Etc.
Dimensions of achievement represented by formal and informal tests
Evidences on classroom behaviors of the teacher (Proficiencies)
Observational Techniques
"Formal" but Indirect Techniques

1. Covariates (confounding variables) that is, those variables that need to be controlled in multivariate analyses of the data in order to assess more adequately the effectiveness of the training program. These covariates generally fall under two major headings:

a. "Sociological" covariates, such as social class of trainee or his family (occupational level of father, educational levels of parents, etc.): ethnicity; religious preference; nature of trainee's previous education (type and quality of high school and college, type of program, grade-point averages, etc.); residential pattern of trainee's childhood and youth; that is, types of communities in which he lived (size, characteristics, etc.); family factors (cohesiveness, size, etc.).

b. "Psychological" covariates, such as general intelligence (or scholastic aptitude); occupational aspirations; motives for training; attitudes toward teaching and other dimensions of the school; perceptions (that is, beliefs and understandings) of teaching and other dimensions of education.

The above lists of covariates are merely suggestive. No single evaluation plan would (or could) employ all of them. The set of covariates a particular evaluation effort will finally choose will depend in large measure on a logical estimation of what "outside" variables might account for, fully or in part, for the success of the training program.

2. Aptitudes (predictors). In this part of the pretraining assessment program an inventory of student proficiencies is made. Taken collectively, these proficiencies may be represented as the foundation stones upon which the training program is built. One can identify these "aptitudes" for the particular training program by asking what understandings and skills, attitudes and values, interests and appreciations, etc., need to be present in the student body at the outset in order for the training program to be

launched.

The Training Program

During the course of the training program two major types of information should be collected:

1. Evidences on the particulars of training. This represents a detailed statement of what actually happened in training, not what was supposed to happen. One might call this evidence a "log" of the actual program of training, a detailing of the major stimuli and experiences that represented "the program." The chief purpose of such information is to serve as a source of explanation of the data obtained on trainee achievement and proficiency.

2. Evidences on trainee attainment of those achievements obtained directly from the training program. Such achievements served as the basis of the proficiencies to be later identified in classroom teaching.

The achievement data are assembled from formal and informal tests whose contents are direct reflections of the operational statements of objectives of the major elements of the training program. The objectives for a particular element, be it a social science seminar, a community work assignment, or a formal course, stated in terms of the trainee behaviors to be developed by that element, represent the blueprint for the construction of evaluation instruments.

The collection of achievement data should not be limited to beginning-of-training and end-of-training assessments. Rather, the notion of continuous data collection on developing achievements is the ideal. A data collection system that is intermediate between these two extremes is entirely feasible at present,

Achievements are conceived here to include the attainment of those appreciations, attitudes, values, and interests that the training program deems to be central to its efforts. Thus achievements can be non-cognitive (e.g., an appreciation) as well as cognitive (e.g., an understanding).

Outputs (Classroom Proficiencies)

These are the on-the-job behaviors after formal training has been completed. They represent the ultimate "payoff" of the training. The many "achievements" of the formal training period are now organized into fewer but more complex "proficiency" structures. An analogy may be made with foreign language instruction: The achievements may be thought of as the development of language skills (i.e., reading, speaking, writing, listening) in terms of the language elements (e.g., intonation, phonation, etc.). Intonation achievements, for example, are specified for each of the skills. Proficiency, however, represents the successful integration of the achievements into fluent language behavior exhibited not at the training site but in situations where such behaviors are required.

Central to the collection of evidence on teacher classroom proficiencies are those observational techniques that focus directly upon teacher behavior. "Formal" instruments can also be employed here, but only as supplementary to the observational techniques. Here the pupil, the supervisor, as well as the teacher himself, are indirect sources of evidence on teacher classroom behavior.

SUPPLEMENT A

ORDERING OF BEHAVIORS SPECIFIED BY TASK FORCE ONE INTO TEACHER BEHAVIOR AREAS

A. In his general appearance and manner the teacher should:

1. Exhibit verbal and non-verbal behavior with appropriate patterns of emphasis, patterns of loudness, patterns or amount of teacher talk.

2. Manifest emotional stability of a positive nature--an attitude of positiveness toward life, optimism, cheerfulness, outgoingness, stability.

3. Utilize a highly dramatic approach to capture interest and offset the tendency of pupils to "tune out" the noisy, confused world in which they live.

4. Be "one with students" while always remaining on own level. Students respect teachers who can be friendly and kind and still be a teacher. Sometimes, in trying to become "one with their charges," teachers succeed rather in becoming "one of them." Naturally, youngsters treat them as one of themselves and trouble follows.

5. Demonstrate willingness to accept responsibility and exercise authority. Pupils must sense that the teacher has fiber and strength, even if it be the quiet kind that is reflected in merely a disapproving gaze.

B. In manifesting a regard for and interest in pupils as individuals, the teacher should:

1. Encourage oral expression of personal feelings and attitudes.

2. Discuss with individual children their weekend or after-school activities.

3. Take some of their "valuable school time to see what students do after school (dancing, singing, etc.)."

4. Show interest in what children have to say. A teacher also learns from the student.

5. Be available and approachable. Exert positive influence by individual interaction with students.

6. Increase time spent listening to a child, encouraging him to speak about his interests and problems, thus hopefully making a more accurate evaluation of his problems. Discuss weekend and after-school adventures of students.

7. Refrain from censuring undesirable idioms and speech patterns of children but rephrase them in appropriate form.

8. Never reprimand pupils in front of their peers on an individual basis. The act should be criticized, not the individual.

9. Provide ways for a child to "save face" through judicious handling of discipline problems.

10. Use bulletin boards to display pupils' independent activities and achievements in varied activities.

11. Praise a child's strong points whether they are in athletics, shop, or in academic fields.

12. Treat each child with courtesy: please, thank you, etc. Smile as each child enters or leaves the room.

13. Notice a new belonging, however minor, and comment on it.

14. Learn every child's name and its correct pronunciation early in the semester and use it whenever referring to the child.

15. Keep a record on the chalkboard every month of the children who have birthdays that month.

16. Give the child ample time to reply. Recognize that often the youngster will know an answer but is unable to express himself quickly and fluently.

17. Convey to the child your confidence that he can achieve, that he can accomplish. Win his confidence in the teacher and the school.

18. Exercise care in testing so that a degree of success can be achieved.

19. Reprimand students only on a private, one-to-one basis. Privately emphasize that the student acted contrary to the general classroom or school regulations.

20. Encourage the child to speak out about his life and experiences. Comments should be made in such a manner that the child feels that he, too, can offer something to the general knowledge of the classroom.

21. Utilize student-prepared materials.

C. To help children adapt to the prevailing cultural norms and standards the teacher should:

1. Maintain high standards of educational attainment and manifest no condescension.

2. Never accept inadequate work or lower standards.

3. Require that necessary equipment, such as pencils and notebooks, be brought to class each day.
4. Provide for goal-setting and task achievement.
5. Help pupils relate to the prevailing culture by inculcating values such as: time pressure, cleanliness, grades in school, test taking.
6. Show fairness and consistency in treatment of children.
7. Be impartial in classroom disputes.
8. Demand more of the students than they are giving in their work behavior. This can be easily adjusted to the individual child.
9. Assign homework regularly and fairly. Check the children's work.

D. To assist pupils in understanding the concept and importance of ordered classroom organization and to help them move toward more self-directed experiences the teacher should:

1. Recognize the importance of seating arrangement.
2. Have classroom well-ordered and physically ready: desks in order, bulletin boards up, seating chart ready, supplies ready.
3. Have traffic routine completely worked out in advance--be definite and persistent in establishing this routine. Be personally organized.
4. For the first month or two have a highly structured class presentation, i.e., teacher dominated. Then give up leadership slowly to the class. After they can handle one thing, go on to the next. If they have trouble, help them develop what is lacking.
5. Never tolerate poor behavior. Act promptly.
6. Insist that children keep voice at a pleasant pitch.
7. Explain "why" when teachers have to do something that affects the children.

E. To encourage pupil initiative and responsibility the teacher should:

1. Establish activities that allow the students the opportunity to work independently of direct teacher control. The child cannot learn self-discipline if he is not given an opportunity to practice self-discipline. This self-discipline is best brought about in activities in which students are interested and that they are able to comprehend. Do not underestimate the ability of students to take charge of a situation or projects.

2. Increase the opportunity for purposeful movement in the classroom.
3. Give students a chance to move about freely whenever possible in the classroom; also give them many opportunities to speak orally to the teacher and to each other.
4. Develop with groups of children plans for activities that involve social relationships of various kinds.
5. Set climate in classroom permitting children to dissent in proper manner.
6. Utilize pupil-helpers.
7. Help pupils learn by indirect instruction as well as by direct methods.

F. The teacher should use multi-sensory materials and activities and should:

1. Provide educationally relevant stimuli--a variety of experiences that have continuity and sequence.
2. Recognize that the disadvantaged child often learns in a visual-physical, slow manner and is frequently not flexible in learning style.
3. Start with the concrete and familiar--work with the concrete and familiar.
4. Teach a non-reader by using the subject matter he knows; e.g., the services and institutions in his community. Thereby build his vocabulary.
5. Use simple materials.
6. Use extensively construction and manipulative materials.
7. Utilize chalkboard, pictures, games, etc.
8. Utilize audio-visual instructional techniques, such as slides, movies, and records as frequently as feasible.
9. Use, if at all appropriate, any "acting out" situations as motivation for a lesson.
10. Employ as many senses as possible.
11. Collect and make available current and old magazines of interest to students. Invite students who finish their assignments or have nothing to do to read a magazine.
12. Set aside free time for students to pursue any of the rich variety of activities and materials that should be available in the classroom. Do not over-regulate the child's time in order to insure easier control

over the classroom situation. The overly-controlled classroom often presents the most problems in discipline because there is no freedom of movement.

13. Use game approach whenever possible.

G. The teacher should vary activities and change pace as follows:

1. Vary teaching techniques and classroom procedure in relation to attention span and needs of pupils.

2. Pace activities quickly to sustain interest and increase the pupil's attention span.

3. Emphasize short lessons and short examinations.

4. Make more complete use of tangible rewards. Pupils are much more oriented to the present and are often not at all oriented to the future.

5. Change the pace of classroom instruction in order that the students are not allowed to sit too long, read too long, or engage in any one activity too long. Sense when to switch to another activity and what form of activity is best suited for the moment.

6. Use role playing in studying workers in the community; let children assume the roles of community workers.

H. To insure individualization of instruction the teacher should:

1. Be willing to take the time necessary to study the children as individuals.

2. Teach the children, in many instances, on a one-to-one basis.

3. Use reading materials appropriate to pupil's needs.

4. Take into account the child's "learning style" (visual-physical, slow, one-track, inflexible).

5. Concentrate on the way the child works and not on the reasons for not learning.

I. To maximize pupil's verbal behavior the teacher should:

1. Encourage the children to speak at greater length than usual in their milieu.

2. Emphasize communication skills.

3. Have group and panel discussions--idea sharing.

4. Make frequent use of games, such as Show and Tell, or similar

techniques to encourage self-expression.

5. Strive constantly to improve limited vocabularies through field trips, etc. Disadvantaged children need much practice in learning to listen. They need much work in learning to talk to others, in having others talk to them, in listening when others speak, and in having others listen when they speak.

6. Provide materials with which the child can identify himself; e.g., the reading series developed by the Writers' Committee of the Great Cities School Improvement Program of the Detroit Public Schools.

7. Provide activities that give the child frequent opportunities to write.

8. Work persistently on study skills in connection with subject matter.

9. Encourage students to bring in many items from their own homes that lend themselves to classroom discussions and experience.

10. Present every subject as a reading lesson, while not neglecting the subject matter, because reading is one of the greatest problems. Development of new vocabulary and introduction of reading skills are necessary in every area of learning.

SUPPLEMENT B

NOTES ON USING EXISTING TECHNIQUES FOR MEASURING TEACHER BEHAVIOR TO MEASURE BEHAVIORAL OUTCOMES OF THE SCHOOL-UNIVERSITY TEACHER-EDUCATION PROJECT

It was the unanimous opinion of this committee that no instruments exist that can serve as satisfactory criterion measurements for the proposed projects, even if the behaviors described in Supplement A are accepted as the ones to be measured. As is usually the case, instruments developed for one specific purpose (as most observational techniques were) are seldom very useful for any other. However, since the constructing of a new observational instrument involves time, skills, and efforts that some project staffs may be unwilling or unable to devote to the task, it may be necessary to make do with whatever is available.

The problem is complicated by the fact that most of the studies that have attempted to analyze classroom behavior have not concerned themselves with developing what can be called measuring instruments, and also by the fact that many have had a theoretical bias or interest that has led them to focus rather narrowly on certain aspects only. These limitations effectually rule out many creative and scholarly studies, including those of Aschner, Bellack, Hughes, Smith, Spaulding, Withall, and Wright and Proctor.

There have been very few objective techniques described that are relatively easy to learn to use, that yield quantitative scores suitable for the analysis of experimental results, and that tap some (at least) of the areas of behavior described in Supplement A. We have found only two--the one used by Francis G. Cornell and his associates (see Chapter 6 of the Gage *Handbook*, pp. 274 ff.: or Cornell, Lindvall, and Saupe, *An Exploratory Measurement of Individualities of Schools and Classroom*, Urbana: Bureau of

Educational Research, University of Illinois, 1952) and "OScAR 2a" (see Medley and Mitzel, "A Technique for Measuring Classroom Behavior," in the Journal of Educational Psychology, 1958, 49:86-92. In the accompanying chart (Figure 7) we have indicated which of the multiple keys for each corresponds most closely to each of the areas of behavior described in Supplement A.

We have done the same thing with two other techniques, neither of which meets all of the listed criteria. Flanders' Technique of Interaction Analysis requires rather more intensive training that we have indicated; however, the fact that it has been used successfully in so many different places tends to belie us. Also, it was not designed to be scored on more than one dimension, nor has it been used in this way. However, there is no reason to doubt that it could be so used, although the fit between either the basic categories or the areas of the matrix and the Task Force One areas is not very close. (See Flanders' "Interest, Action, and Feedback: A Preparation for Teaching," Journal of Teacher Education, 1963, 14:251-260).

The results of a factor analysis of "OScAR 3," a schedule designed for and used in the analysis of behaviors of student teachers as recorded on kinescope films, are also included although this schedule is not suitable for classroom use without drastic revisions (which are under way), mainly as illustrative of the kinds of dimensions that can be measured. (See Medley, "The Development of Classroom Behavior Dimensions for Student Teachers and Pupils," read at the 1962 meeting of the American Association for the Advancement of Science and available from the author on request.)

Some comments seem worth adding by way of footnotes.

1. The possibility of combining two techniques should not be overlooked. Wilks and others combined Flanders' technique with a portion of OScAR 2a (as described in a recent issue of the Journal of

Figure 7

RELATION BETWEEN TEACHER BEHAVIORS IDENTIFIED BY TASK FORCE ONE AND CERTAIN OBSERVATIONAL TECHNIQUES

Area Identified in Task Force One Report	Scale From Cornell, Lindvall, Saupe	Flanders' Interaction Matrix Category	Area	Factor Found in Analysis of OScAR 3	Original Scoring Key on OScAR 2a
General Appearance and Manner	Competency	7(-)	F(-)	Presence	Teacher Hostile Behaviors C-3
Use of Multi-Sensory Materials and Activities	Variety				Use of Audio-Visual Materials
Variation in Activities and Change of Pace				Imaginative Teaching	
Individualization of Instruction	Differentiation				Autonomous Groups (Administrative)
Helping Pupils Adapt to Cultural Norms	Climate-Pupil				Traditional Pupil Activities
Encouraging Maximum Verbal Behavior		4,8(+)	G(+) H(-) I(+)	Activity	Verbal Activities Problem-structuring Statements
Orderly, Quiet Classroom	Climate-Pupil	6,7(-)	F(-)	Presence	Disorder(-)
Pupil Initiative and Responsibility	Initiative	3,9(+)	J(+)	Initiative	Autonomous Groups (Social) Freedom of Movement Pupil Leadership
Awareness of, Interest in Pupils as Persons	Climate-Teacher	1(+)	E(+)	Consideration	Teacher Supportive Behaviors

Educational Psychology) with satisfactory results.

2. It is possible to use an existing schedule with the right kind of items with different scoring keys than the originator used. Wilks has done this, and so have one or two others with OScAR 2a. (They have also made greater or lesser revisions.)
3. The areas of behavior described in Supplement A are almost surely describable with a much smaller number of factors: the fourteen keys for OScAR 2a were describable in terms of three factors with a loss of only a third of their variance.

APPENDIX A

AN EXPERIMENTAL TELEVISION CENTER FOR TEACHER EDUCATION

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The Hunter College Television Center is an experimental facility that is used to explore ways in which a teacher-education program in all its aspects --teaching, training, and research--can be improved, enriched, and extended through the medium of live and recorded closed-circuit television. As an experimental facility, it is in a continuing state of change, both functionally and technologically, as the experience and creative imagination of a searching staff may dictate. Any description of its current features may, therefore, be quite out of date by the time it is set down; however, enough can be learned by a description of the present functions and characteristics of the center to provide others a basis for their own explorations of the medium. In any case, it may preclude the commission of the many mistakes and false starts that plague any venture undertaken without the benefit of the experience of others.

Any professional who has had anything to do with the newer media has experienced the almost hypnotic attraction they tend to exact from those who become involved in and committed to their use. Closed-circuit television, in particular, with its fascinating complexity, its ability to transmit and record with astonishing fidelity and immediacy the sight and sound of current events can easily develop disciples who may find themselves leaning more and more to the view of television as an end in itself and not in its proper functional place as a means to an end. It is, therefore, imperative that the functional place of a television installation be kept under continuing review within the perspective of its place in the total program of an institution. When used to enhance a program of teacher education, in particular, its organization, operation, and facilities must be grounded thoroughly in the functions it is expected to perform, and the performance of these functions must be continually subject to objective evaluation.

A teacher-education program must, of necessity, be performance oriented. Its sights must be firmly set on ways to achieve its performance goals--the teacher functioning in his classroom, the guidance counselor providing help to his clients, the supervisor stimulating the improvement of a teacher's classroom effectiveness. Future teachers must, therefore, be provided experiences in an ascending order of personal involvement that will develop understanding of these functioning situations and skill in becoming a directing part of them.

Observation and Demonstration

There is a seriously restrictive limit on how much can be learned about children, teachers, and counselors without seeing and experiencing them in actual behavior. Therefore, an accepted feature of any teacher-education program is the observation of children and teachers in their normal everyday interaction in the schools and on the playground. In-person viewing has its own limitations, however. There is the logistic problem of providing enough facilities and time for the many individual and small-group visits that are inevitably requested. There is the possible distractive influence of an observer in the classroom, particularly serious when groups have to be accommodated. There is the restricted view of the observer, usually from the rear, and more seriously, the varying skill of untrained observers in accurately seeing and interpreting what actually is happening. Finally, there is the distinct possibility that what was seen may not have had the relevence it should have had, that later discussion of what was seen in the college seminar may seriously suffer from the distance in time between experience and recall, from unsophisticated observational skills, from the inevitable fact that neither the professor nor the observers saw and experienced the same thing. These and additional limitations apply to observations that have a specific demonstration function, --the teaching of a unit on the weather in the third grade, in individualized reading procedure, learning to use the dictionary, applying number concepts, etc.

Since it is extremely unlikely that an observer will find made-to-order demonstrations in the course of a visit to a normally functioning school day, he may never see what he needs unless so-called demonstration or "model" lessons are put on especially for his benefit. Not only do such "models" tend to be contrived and artificial, but there is a limit to how many can be arranged without seriously hampering the work of the school.

The recorded sight-sound media, particularly video-recordings on tape or kinescope film, provide intriguing means of extending these necessary observation and demonstration functions to hitherto unknown levels of efficiency and pertinence.

The sight-sound medium can fulfill an eavesdropping function without the intrusive presence of the physical observer and can multiply to the capacity of a viewing room the number of observers that may watch without being in the physical presence of the subjects being observed. The eye of the observers may be extended to the extent that television cameras may roam at will, provide close-up views of student's and teacher's faces and of activities to an extent quite impossible in in-person viewing. If properly directed with a knowledgeable professional determining the selection of multiple camera views, the views shown can be selected with the optimum educational effect in mind. In other words, the trained observer can direct through the selection of cameras and "shots" the views that the untrained observer will see. Both the professional and the trainee can witness in a remote location the same views, thereby obviating to a great extent deficiencies of recall and interpretation due to dispersed, uncontrolled, and unwitnessed individual in-person field visits.

Recorded television adds additional advantages. It is not time-bound; it captures for the life of the recording what in the in-person or live television view happens but once and is forever lost, except in highly fallible human recall. A particular recording of a happening in the English classroom is available for replay whenever it is needed (as in a college class meeting during evening hours) and is available for classes tomorrow and the next day or next semester--long after the event has actually taken place. It is also available for replay, for interruption, for comment, as the need arises. Finally, it can be discarded, or at least not used in a particular instructional situation because of its lack of pertinence to the matter at hand. A live visit, whether by television or in person, can never be subject to the selectivity a recorded medium provides; indeed, so much of what is seen live may have value in terms of organized learning far below the time invested in its procurement.

Finally, the television recording, particularly the record on kinescope film, has the additional advantage of being editable and generally independent in its final application from the medium that originally produced it. A 16 mm film recording may be spliced and combined and may be played back wherever common classroom projectors are available. While it is undoubtedly true that sight fidelity in particular is inferior to videotape in the kinescope medium, its general flexibility of wide applications independent of expensive and restricted video installations makes the kinescope medium highly desirable in the observation and demonstration functions of teacher education.

Self-Appraisal and Guided Self-Development

Teacher education, like any program of skilled professional training, culminates in supervised performance as a practitioner. The apprentice, or student teacher, or intern, learns his craft while practicing it. A basic problem in developing skills based on human interaction with others is that it is extremely difficult for the individual to get close to himself as others see, hear, and experience him. Even the dancer who practices in front of a mirror sees himself in reverse lateral perspective. The public speaker hears himself from within his own acoustical system, which, as anyone who has listened to himself on a tape recorder can attest, is quite foreign to the sound heard by another. Similarly, it is extremely difficult for a teacher, or a guidance counselor, or for that matter a lawyer, an actor, or a public speaker, to come close to a realization of how he is experienced by others. He is encapsuled within the blindness and deafness of his own extremely limited self-experience. In recognition of this physiological impossibility of being able to experience oneself as one affects others, training programs have provided the intermediary of the trained supervisory observer, whose function it is to interpret to the individual his effect on others and to provide guidance for his self-improvement as a communicator and influencer of the behavior of others. Yet the effect of the mentor in assisting the development of the performing professional has always been inhibited by two major limitations: (1) the inability of the trainee to see and hear himself as others do, except vicariously through the report of others, and (2) the inability to recapture, except through verbal, vicarious recall, what the subject actually did, said, and looked like. Sound tape, because it provides a recapturable recording of what was said, is useful, as is attested by the growth of language laboratories in language instruction. But where the visual and the aural are integral parts of a whole experience, as is the case in teaching, the recorded sight-sound medium is of far more pertinent usefulness. As in the observation and demonstration function, the video-recording pro-- vides rich potentialities for the function of self-appraisal and guided self-development in the process of teacher education. Unfortunately, cost may prove to be a major deterrent, since recordings usable only for the individual require a much larger investment per trainee than recordings of observations that can be used with many groups. However, the development of relatively low-cost, portable video-tape recorders may effectively remove this financial obstacle.

In any case, much more needs to be done to discover ways of using sight-sound recorded media to improve the processes of self-appraisal and guided self-development in the teaching profession. This need justifies the installation of experimental television centers similar to the one at Hunter College in many other teacher-education centers to provide a basis in experience and experimentation for a future time, not too distant, when the medium of sight-sound recording will be much more economically and universally available.

Behavioral Research in Learning and Teaching

The recorded sight-sound media provide a hitherto unattainable resource for research in the learning and teaching process. For example, the resources for analysis of what constitutes the elements of teaching behavior are largely vicarious--descriptions of live observations; narrowly limited--products of one-time ratings and descriptions of what was observed or statistical analyses of ratings largely unsupported and unchecked by repeated checking of the observation of the same event; and essentially philosophical--consisting largely of what was hoped for (useful as this is) without evidence to support the demonstration of its actual attainment. Video recording of many selected examples of teaching and learning behavior provide, for the first time, repeatedly observable events that may be analyzed and checked as often and by as many as is deemed desirable, unlimited by the fallibility of human recall of remembered observation or the limitation in numbers restricted by the logistics of live observation. Thus, reactions can be checked and validated, and the event is recapturable again and again for analysis and research. As a resource for studies in the elements of teaching behavior, of group process in the classroom, interactive forces between teacher and student, student and student, counselor and student, supervisor and teacher, of learning characteristics peculiar to individual differences among students and peculiar to the nature of the skill and subject being learned, to mention but a fraction of the possibilities for investigation in the field of teaching and learning, the sight-sound medium of video-recording opens vistas of resource hitherto unattainable. As a mundane, but highly practical example, one can cite the problem of developing standards for the appraisal of teaching performance in the student-teaching or apprentice level of teacher education. In a field that has been the butt of much criticism, the one feature of teacher-education programs that has been affirmed by even the most destructive of critics has been the student teaching or supervised internship experience. Not only has it generally been accepted as most valuable, but it has in experience been found to be by far the most expensive of the elements of teacher education. Yet experience per se without direction, guidance, and supervision may be worse than no experience at all. The major key, therefore, to the success of the practice in teaching of the trainee is the quality of guidance and supervision he receives. Yet, of all the elements of professional direction in a teacher-education program, the one least investigated and evaluated has been the nature and quality of the supervision offered. This has been so because of the unobservable individual nature of the activity. Standards of teaching and conceptions of what constitutes acceptable teaching behavior in a variety of situations have been largely based on verbal agreements unsupported by common observations of representative behaviors in the actual classroom situations. The medium of recorded sight-sound observation of teachers in action, however, provides for the first time common experiential resources for the analysis of the nature of various kinds of teaching performance and a common basis for the consideration of means to secure improvement in the performance of individual trainees. English departments have found an analysis by the entire staff of representative student compositions to be a great boon to the development of common standards of evaluation and of student guidance; similarly, the availability of video-recordings of teaching provides a basis for establishing norms of appraisal of teacher performance and of providing consistent and valid guidance of teacher development.

There is hardly an area of human behavior observable within the confines of a school that does not lend itself to the possibilities of videotaped observation. True, this resource may have limitations posed by the nature of the medium itself since the view is limited by the scope of the eye of the camera and by the limitations inherent in the situation--placement of microphones, possible distraction of the presence of equipment and by the knowledge that recording is taking place, etc. yet both potentials and limitations need to be investigated. The possibilities of the medium are so vast as a provider of resources for research in the behavioral sciences that no institution of standing can afford not to invest in its potentiality. It may well be that recorded sight-sound facilities will become as much a part of behavioral research in teacher education as are laboratories in physics and chemistry.

Direct Instruction

The Hunter College Television Center has not chosen to engage in the usual closed-circuit applications of providing direct instruction of entire courses or parts of courses via the medium. However, the installation required for the functions described above can, without any or at most minimal adaptation, fulfill this function as well. The same cannot be said for installations that are conceived with the primary purpose of providing direct instruction alone, since such installations are modeled largely after conventional studio facilities that do not provide the flexibility and special-purpose refinements necessary to fulfill the functions required in providing teacher education observations, demonstrations, and opportunities for self-appraisal and behavioral research. The section that follow will make clearer the kinds of equipment specifications necessary to fulfill the special functions of teacher education, which, at the same time, will suffice to provide facilities usable for more conventional direct-instruction applications.

Functional Specifications of a Closed-Circuit Television Recording System for Teacher Education

In order to fulfill the functions described above, a system should fulfill the following functional specifications.

Provision for a natural, non-distractive environment. A conventional studio, with its camera booms, huge cameras on massive dollies, massive flats and sets and furniture, theatrical lighting, may be so arranged as to broadcast and record as if it were an ordinary classroom, but the participants will not be deceived and will find it most difficult, if not impossible, to overcome the impression that they are players playing a part. To be used successfully in a teacher education program the studio environment must broadcast as if it were an unforced, natural, day-by-day situation, and must be experienced by the participants, teachers and students, as close to a natural environment as it is humanly possible to achieve. This can never be completely achieved, but it can be approximated to a considerable extent. In the experimentation at Hunter College, this objective of experiential as well as broadcast naturalness is the major preoccupation of the technical staff. The evidence so far seems to indicate that this naturalness has been achieved to a considerable extent. Observers viewing the many videotapes and kinescopes that have been produced, and the teachers who have participated in them attest to the fact that the level of distraction of technical gear has been kept to a satisfactory minimum. The studio room used for broadcast purposes not only is seen by the television camera as a typical classroom, but as far as it has been proved possible, is experienced by students and teachers as such. It contains as standard equipment all the conventional appurtenances of the typical classroom --chalkboard, bulletin boards, familiar student seating. Interestingly enough, those modifications that have been undertaken to improve the sound and visual quality of broadcast--acoustical treatment and higher than conventional lighting levels--have been judged by students and teachers alike to improve the studio as a classroom. Therefore, many of the functional specifications described in the material following not only help to achieve a minimum of distraction to the natural teaching-learning situation, but many of them have turned out to enhance the environment for teaching and learning, regardless of the special function of broadcasting and recording for which they were designed.

Provision for remote control operation. No single factor in a broadcast situation is as distracting as the presence in the studio of personnel not directly connected with the teaching-learning-counseling activity. Soundboom, camera, and directorial personnel must, therefore, be kept out of the room. In the Hunter College operation all video, audio, and directorial functions are exercised by remote control in a room many hundreds of feet removed from the studio classroom, and completely out of the view of those being broadcast and recorded. In this mode of operation, all the functions of a television camera--pan, tilt, and zoom--are accomplished by electronic remote control from the control room. The cameras themselves are quite small, attached unobtrusively to wall mounts in various parts of the room, and in two- to four-camera combinations, can effectively cover everything that is worth observing, from a close-up of one youngster writing in his notebook to a rear or front view of the entire classroom, all by remote control. All cameras can be shifted in a manner of minutes from one wall mount to another, depending on the coverage desired, and the mounts themselves provide varying vertical positions from close to ceiling to eye level. Two operators and one director calling the shots are needed for a four-camera operation; for two-camera operation, one operator will be needed. The difficulty of the problem is in direct relationship to the coverage required--a class of thirty presents greater difficulties than a small group or a counselor-client interview. Experience has shown, however, that acceptable results can be achieved with even a large class, provided documentary film or broadcast studio fidelity is not required. The point is quickly reached at which the naturalness of the learning-teaching environment is unsatisfactorily compromised.

Provision for sound fidelity and coverage. No sound problem is more difficult to solve than the recording of a full classroom of students, particularly if naturalness is to be preserved. Students in a clasroom are not trained actors, nor can they be expected to modify their normal behavior as drastically as would be required if they were actors in a broadcast or a documentary film. To complicate matters, microphones are not as selective as the human ear; they pick up everything--the chair scraping, the scratch of chalk on the board, the rustle of paper, the shuffling of feet--all the distracting ambient noises that the human ear will reject. Therefore, the sound recording achieved from a close-to-normal classroom situation will always be much noisier than the professional studio broadcast. However, it is possible to bring the ambient noise level down to acceptable levels with proper accoustical treatment of ceiling, walls, and floors, and with some sophistication in the use and placement of microphones.

Provision for video fidelity. Video fidelity is far easier to achieve than audio fidelity. Light levels must be kept high enough to privide a sufficiently sharp and contrasted image, yet low enough not to be painful or distracting to the eye. A multiple-camera approach provides greater variety of pertinent views than a single camera, provided proper choices are made by the director in the control room. It should be possible to roam the video eye to all points of the room, from a screen-filling close-up of a child's face, to a view of an entire class. If possible, one should be able by means of split-screen devices to watch, for example, a teacher's expression and a child's expression simultaneously. Every desk, every child, every portion of the chalkboard should be viewable by the camera's eye as it would not be by the eye of the in-person observer in the room.

Provision for recording. As indicated earlier, video recording extends to almost limitless bounds the usefulness of a closed-circuit television system for teacher education.

To be of maximum usefulness, video recording must be editable so that material can be discarded and combined for optimum educational use. The recordings must be playable and usable not only in locations served by a closed-circuit system but in other locations as well. Therefore, for the present, a combination of videotape and subsequent kinescope film seems to provide the best possible combination of media. The videotape provides far superior fidelity, but the 16mm kinescope film is far more readily editable and may be shown wherever a conventional 16mm sound film projector is available. In any case, no closed-circuit television system can achieve even an approximation of its potential usefulness without some kind of associated recording facility.

With these functional specifications in mind, there follow more detailed technical specifications based on the experience gained in the development of the Hunter College Television Center. It must be emphasized, however, that while the functional characteristics desired will remain relatively constant for some time, the technical means to achieve these functions are changing constantly and rapidly. It is literally true that gear bought today may be outmoded tomorrow, so rapid is the advance in electronic applications. Any facility must, therefore, be prepared to set aside a considerable proportion of its initial investment for modernization.

Technical Specifications

The Hunter College closed circuit system is a completely remote controlled television system. The limitations imposed by this type of system are many but most of them have been minimized through experimentation and development of special techniques.

The room lighting is, by necessity, fluorescent. Incandescent lights generate excessive heat and cannot be used in rooms without air-conditioning. Other types of light, such as mercury vapor, quartz crystal, neon, and sodium vapor, though more efficient in heat to light ratio, are not usable because of their high color temperature or harshness to the eye. Though rather flat and lacking in contrast, the fluorescent lights lend themselves to room lighting, and the light is compatible with the vidicon tubes in the TV cameras. The fixtures must be silenced, or the microphones would pick up the ever present hum generated by the ballasts in each fixture. In new construction or renovation of existing facilities the ballasts may be placed remotely in another room or hallway. The problem was solved at Hunter by placing the ballast transformers in a tight sound-proof box constructed of 3/4 inch aluminum stock. A box of wood or plastic could not be used because the heat generated by the ballasts must be dissipated. The ballast boxes were hung independently from the ceiling.

A light level of 100 to 200 foot candles is desirable. With less light the lenses must be opened wider, thus giving less depth of focus. Fixtures with parabolic or solid downward reflectors should be avoided since they tend to reflect the sound at their resonate frequency, thus upsetting the acoustics in the room.

Since sound pick-up is very important, TV recording rooms should be treated on the ceiling and upper walls with acoustic tiling. All large window areas should be coverable with draw draperies made of sound-absorbing materials such as monks cloth or muslin-lined burlap. The floor should be cork tile, rubber carpet, or should at least be broken up with great numbers of throw rugs, which may be picked up at the conclusion of the telecast. The desks or tables should have a cover of some type of fabric. Table covers similar to fitted bed sheets of a non-reflecting color proved to be most satisfactory. These are easily removed after the telecast. Each of these concessions to the "normal classroom" have been well worth the effort in terms of sound pick-up, and when carefully executed did not detract appreciably from the natural classroom environment. There is no room for compromise when providing for sound pick-up in the classroom. The best is not good enough to pick up all children under all conditions. After years of trying every type of microphone, pick-up arrangement and electronic equipment, we have found the condenser microphone to be the best suited to random pick-up, such as full classroom recording. At present we are using four condenser microphones for full classroom recording. Three microphones having cardioid or directional pickup are suspended from the ceiling over the children. The fourth microphone with an omnidirectional pattern is located over the teacher. All four microphones are fed into a pre-amplifier mixer. The signal is then fed into a program equalizer that enables us to distort the sound in such a manner that we can compensate for poor microphone pick-up or speech quality. The signal is then fed into a limiter, which tends to level out the sound. The sound is then fed into the line.

The line feeds audio-signal to the monitor amplifier (which feeds sound into the control room), the line amplifier (which feeds sound to the classroom), the TV tape recorder, the audio tape recorder, and the TV modulator.* The studio classroom may serve many functions, as it does at Hunter. In the morning it may be set up as a typical classroom; in the afternoon it may be used to record a panel discussion, a guidance session, or remedial reading lesson. To provide for this versatility, movable furniture and flexible camera mounts are provided. Brackets are fastened on the wall in six different locations. The camera mounts snap into place, allowing for various elevations and positions. Up to three cameras may be fastened to each mount. Hooks are mounted near the ceiling to allow for moving camera cable from one position to the next without having cables on the floor.

Hunter College is now developing equipment incorporating solid state circuitry (transistors, etc.) which will further refine the quality of audio transmitted from the classroom. This equipment will incorporate a limiter for each microphone channel that operates in conjunction with a voice-operated relay. Each microphone will turn itself off when the voice level does not exceed the noise level picked-up by the microphone. The limiter in each channel will prevent the sound picked up by the microphone from exceeding a certain level, thus preventing distortion caused by sound overload. This equipment should be in operation by the spring of 1965.

The video or television equipment used is all industrial equipment not designed for studio or professional use. The quality leaves much to be desired when compared to 16mm or image orthicon cameras used on commercial television; yet the equipment has proved to be quite satisfactory for closed-circuit transmission and video-recording. Solid-state technology has made possible the production of newer vidicon cameras that compare more favorably to professional broadcast equipment than the eight-year-old cameras used in the present Hunter College system.

Each camera is mounted on a pan-tilt mechanism and is equipped with a zoom lens. The pan-tilt and zoom controls have been built into a special double panel permitting an operator to run two cameras at once. This also conserves space in the control room. For classroom use the 10-to-1 zoom lens has proven most successful. With this lens the camera can pick up over 60 per cent of the class or can zoom in and fill the screen with one person.

*The TV modulator is a unit that takes video (picture information) and audio (sound) and sends the composite signal over coaxial cables to monitors or home-type TV sets in the classroom.

Chalkboard work at the front of the room may be picked up with a camera placed at the rear of the class.

The pan-tilt mechanism moves the camera from right to left and up or down. When using a 10-to-1 zoom, it is desirable to have variable speed pan-tilt controls so that the relative speed of the pan can match the area covered by the lens. These variable speed control units operate in conjunction with a single joy stick control.

In a remote control type installation the vidicon camera is used because of its relatively moderate cost, simple maintenance, and small size. The vidicon camera with pan-tilt and zoom costs in the neighborhood of $5,500, less than one-tenth of the cost of an image orthicon camera offering the same functions. Operation cost of the two systems is even more favorable, with a ratio of about 50 to 1 in favor of the vidicon camera.

With each camera there are three auxiliary pieces of equipment that must be considered: (1) The pan-tilt control unit in the control room console, (2) the monitor that enables the camera operator to see what the camera is picking up, and (3) the camera control unit (c.c.u.) that controls the electronic functions of the camera. These units are all connected to the camera by a TV camera cable.

At Hunter there are seven rooms from which a program might originate. Cables are run into each room from a patch panel midway between the rooms and the control room. Instead of 35 lines running to the control room, there are only five. When the cameras are moved from one classroom to another, the appropriate cable changes can be made at the patch bay. The audio lines are handled in a similar manner, except that an electronic switch is used instead of a patch panel.

The Hunter College installation uses up to five cameras. In most cases four cameras are used in the classroom, with one camera used for tilting and visuals in the control room. In simple shots, such as an interview, testing, and counseling, all cameras may still be used to avoid any camera movement after the recording session has started. Any movement of the camera or change of the lens may be distracting in special situations.

Three cameras are about the minimum number for adequate class coverage. The fourth camera is good for an alternate shot of the teacher, so that both the work at the board and the teacher's movements can be covered. The fifth camera can be eliminated if titles and visuals are prepared on show cards and set up in the classroom.

The control room equipment may be quite simple or very complex. As the system at Hunter College has grown and become more versatile, it has become much more complex. If three or four monitors are desired for viewing, they may be hooked to the output of the camera control unit. If more than four are needed, a video distribution amplifier and a switching device is needed. This may be a very simple device or a complex unit that dissolves, fades, splits the image of two cameras and superimposes one picture over another.

Hunter College has the following control room facilities:

1. A synchronizing generator used to generate pulses that are necessary for the operation of the cameras. These pulses are fed into the c.c.u. of each camera. This piece of equipment is necessary in installations where more than one camera is switched into one line.

2. A switcher is used to switch the alternate choices available to the director onto the lines that feed the classrooms. In the Hunter installation it is possible to feed two different pictures to two monitors in three different classrooms. This permits the viewing class to see simultaneously two views of the TV classroom. Each view is selected from any one of the five cameras available to the director.

3. A wave form monitor enables the video operator to see electrically the impulses coming from the camera. Using this monitor he can accurately balance the ratio between black and white and the picture output level. Though newer cameras have automatic gain control, and no video operator is necessary except for the initial set-up, this equipment is required in all but the most primitive installations.

4. The effects generator used in conjunction with the switcher further adds to the versatility of the system. With a special-effect generator it is possible to put half of one picture on one side of the TV screen and half of another picture on the other side of the same screen. Portions of the picture may be blocked out, or printed material may be superimposed over the picture. This piece of equipment, though most useful for special work, is not essential to routine operation.

The previously described equipment is used in generating an electronic impulse that may be converted into a picture with a TV monitor, converted to radio frequency impulses and sent out to home-type receivers, or stored on magnetic tape or 16mm film. Each fills a specific need.

For direct feeds to special classrooms we feed video information. This can be picked up only by certain selected monitors and is not broadcast over the lines to all the classrooms.

For general distribution the electronic information is fed to a modulator that broadcasts the picture and sound over coaxial cable to the entire school on channel 6, an unused channel in New York City. The receivers, costing half the price of the monitors, can pick up regular commercial broadcasts as well as channel 6.

To store the information, TV tape is the best method. Hunter College has an R.C.A. 1^B tape recorder that records the electronic signal together with audio signal on two inch wide magnetic tape. This tape is compatible with all other professional or quadrature-type tape recorders. The cost for this standardization is quite high, when compared to the newer slant-track machines that cost less than one-fourth the $60,000 paid for R.C.A. machine. The advantages of the quadrature machine, aside from standard interchange-ability of tapes, are quality of picture and editability of tape. Editing slant-track recorded tapes is not at this time feasible.

Kinescope recording, or placing the picture and sound information on 16mm film, is the fourth alternative. Sixteen millimeter film is the most universal method of storing picture information. It is a common practice at Hunter to record on tape and then transfer onto 16mm film those programs to be kept for general distribution. The cost of a kinescope recorder, together with the high degree of skill required to operate it, places this out of the realm of most school and college installations, particularly in regions where commercial transfer facilities are available that will produce film from video tape recordings. It would be advisable, therefore, for an organization contemplating the purchase of a kinescope recorder to check with the transfer facilities in its area.

Figure 8

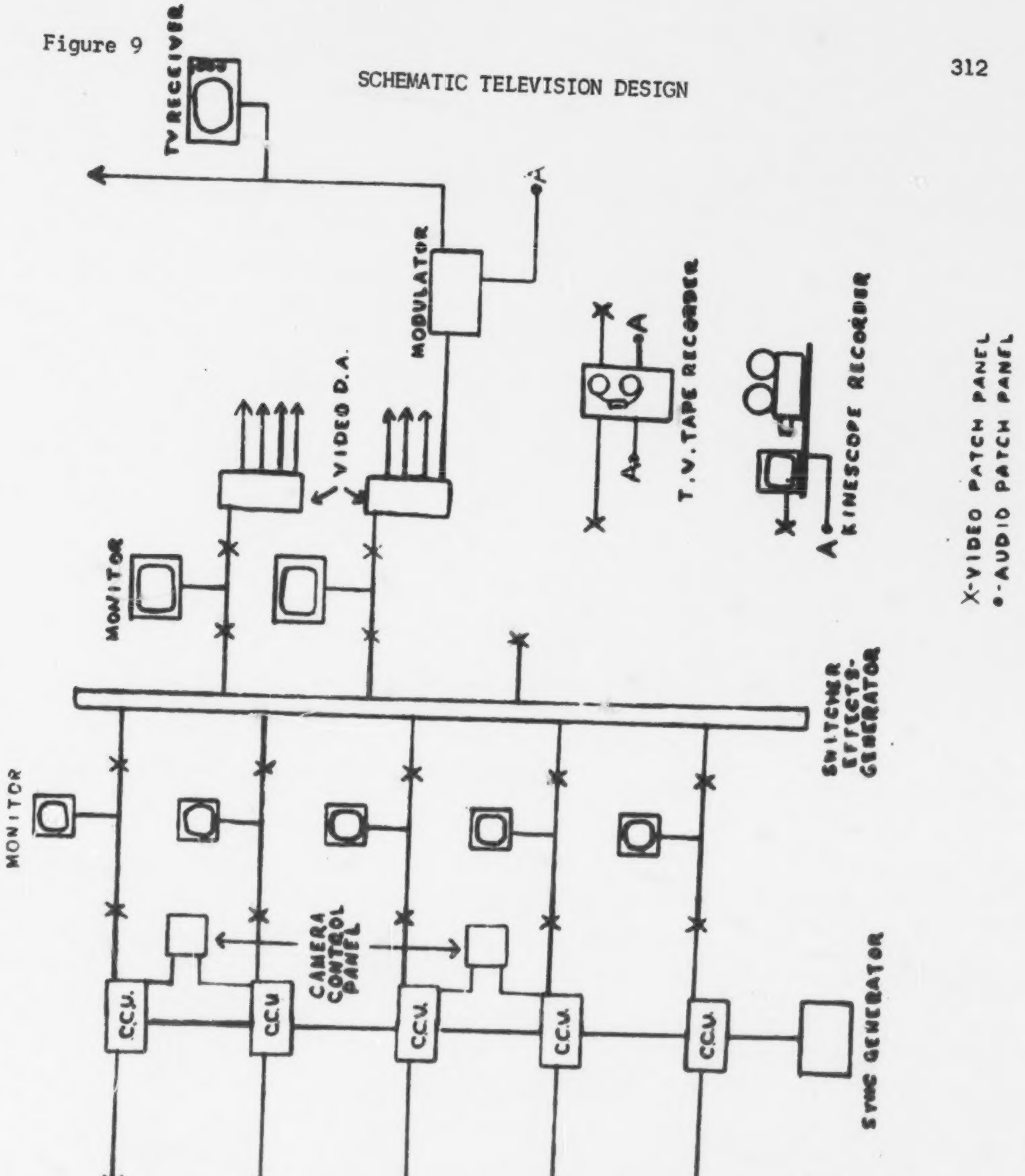
TV EQUIPMENT USED FOR REMOTE CONTROL
CLOSED CIRCUIT SYSTEM

Hunter Has	Item	Price Range (Each)	Hunter's Cost (Each)
	VIDEO		
5	TV Cameras	$ 500- 4,000	$3,000
3	Fixed Lenses	75- 175	100
4	Zoom Lenses (remote)	1,200- 2,000	1,800
1	Zoom Lenses (manual)	700- 1,400	700
4	Pan-Tilt with Controls	450- 700	600
10	Camera Wall Mounts	50- 500	150
1	Sync Generator	1,400- 4,000	4,000
1	Effects Generator	1,200- 4,000	1,300
1	Switcher	100- 1,800	1,200
1	Stairstep Generator	1,200- 2,000	1,600
15	Monitors	250- 600	350
2	Video Distribution Amplifiers	200- 600	400
1	Modulator TV to Channel 6	700- 1,800	1,200
7	TV Receivers	100- 250	190
1	Television Tape Recorder	12,000-65,000	58,000
1	Kinescope Recorder	6,000-60,000	35,000
1	Wave Form Monitor	200- 1,050	800
	AUDIO		
5	Microphones	50- 400	350
1	Pre-Amplifiers (audio)	200- 3,000	1,000
1	Monitor Amp.	100- 300	100
1	Distribution Amp.	100- 300	150
2	Limiters	150- 600	350
1	Program Equalizer	200- 500	350
1	Audio Tape Recorder	100- 2,000	1,500
12	Speakers	30- 75	45
	CABLES & CONSOLE EQUIPMENT		
2,000 ft.	Camera Cable	.08- 1.20 ft.	.90
60	Camera Connectors (w. labor)	40- 60	45
40	Pan-Tilt Zoom (w. labor)	8- 15	12
4,000 ft.	Coaxial Cable 59-u	.04- .08 ft.	.05
350	Video Connectors (w. labor)	1.50- 2.50	2
3,000 ft.	Audio-Cable	.05- .10 ft.	.05
80	Audio Connectors (w. labor)	1.00- 2.50	1.50
1	Video Patch Bay	100- 500	400
1	Audio Patch Bay	50- 250	200
8	Racks	75- 150	125
	SERVICE EQUIPMENT		
1	Oscilliscope	900- 1,800	1,400
1	Diascope (test pattern)	300- 500	400
	FILM & TAPE		
	Video Tape - per min.	1.00- 4.00	2
	Film with processing - per min.	1.80- 4.50	2

In addition to the above listed costs, about 10% should be allowed for installation, and at least 10% per year for maintenance, repair, and minor replacement.

Figure 9

SCHEMATIC TELEVISION DESIGN


REMOTE PAN-TILT ZOOM
MAN. ZOOM
CAMERA PATCH PANEL
C.C.U.
C.C.U.
C.C.U.
C.C.U.
C.C.U.
SYNC GENERATOR
CAMERA CONTROL PANEL
MONITOR
SWITCHER EFFECTS-GENERATOR
MONITOR
VIDEO D.A.
MODULATOR
A
TV RECEIVER
A
A
T.V. TAPE RECORDER
A
KINESCOPE RECORDER
X-VIDEO PATCH PANEL
•-AUDIO PATCH PANEL

APPENDIX B

REACTION TO TASK FORCE ONE'S REPORT*

Richard L. Turner, Indiana University

The objectives of this critique are to note problems and difficulties in the conceptualization and organization of the section headed "Description of Illustrative Teacher Behaviors," of the Task Force One Report and to suggest ways in which these problems and difficulties might be overcome. The end-in-view for the critique is to move toward operational definitions of the criteria against which the success of the teachers in the experimental group can be compared to the control teachers, as required by the objectives stated in "Objectives," in the project titled "School-University Programs for The Pre-Service Education of Teachers for the Disadvantaged."

The Criterion Problem

An initial difficulty in the Task Force One Report lies in the major categories under which the illustrated teacher behaviors are organized. These categories appear to be used as pupil behavior criteria against which the behaviors of the teacher are to be judged. They hold, however, at least two ambiguous relationships not clarified in the report. First, the relationships between the illustrative teacher behaviors and the major categories under which they are subsumed appear to be hypothesized relationships. For example, it appears to have been assumed that if a teacher "Encourages children to speak at greater length," this set of teacher behaviors will influence or change the child's "sense of his own dignity and worth." Whether encouraging a child to speak at great length, whether use of role playing in studying workers in the community, whether encouraging oral expression of frustrations and insights, whether these teacher behaviors lead to a sense of dignity and worth is an empirical question, not a definition or analytic statement. The Report is very confused on this point. Task Force One does not make clear when it is asserting an analytic or definitional relationship and when it is asserting an hypothesis. My over-all impression is, however, that most of the relationships between the major categories and the illustrative teacher behaviors subsumed under them are intended as hypothetical rather than as definitional.

Assuming that most of the relationships between the illustrative teacher behaviors and the major categories under which they are subsumed are intended as hypothetical, at some point the relationship between the illustrative teacher behaviors and the major categories as outcomes in pupil behavior must be verified. Task Force One seems to have placed itself in the position of asserting that what is hypothesized to be a positive relationship between teacher behaviors and pupil outcomes is a positive relationship, without recognizing that the hypothesized relationships must be confirmed in order to attain validity.

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*This paper and the Mitzel Critique which follows in Appendix C are reactions to the Preliminary Draft of Task Force One's Report. Subsequent changes and editing of the original draft have altered certain numberings of category and section heads. As a result, references in this paper to Task Force One's report may not correspond entirely to the specific numerical section headings in the edited Task Force One Report found earlier in this document.

The second difficulty with the major categories employed is that Task Force One does not make clear whether it intends these category statements as definitions of what pupil success in school means or whether it intends the statements as elliptical hypotheses. The intent of the task force in this respect makes a great deal of difference in defining the total measurement task. If the Task Force meant that such statements as "A child needs a sense of his own dignity and worth," and "A child needs to recognize and modify values and behaviors that conflict with school culture," are necessary conditions of a disadvantaged child's success in school, the statements are definitional. If the statements are definitional, then they form the ultimate criteria against which teacher success is to be judged in the project. In turn, independent measures of these criteria must be developed in the project. That is to say that a measure or measures (1) of a child's sense of his own worth and dignity, (2) of recognition and modification of values and behaviors that conflict with school culture, (3) of whether the school has capitalized on and broadened the child's experiential background (it is difficult for me to imagine the instrument that measures this), (4) of the development of classroom skills, (5) of the child's understanding of and articulation of day-to-day problems (I also have difficulty imagining how this is to be measured), and (6) of the child's perceptions of schools and schooling must be developed.

Clearly some of the above criterial pupil behaviors are going to be extremely difficult to measure and should be deleted, but some such as (4) will be relatively easy to measure, while others such as (1)(2) and (6) would be very interesting criteria if developed in an imaginative way.

The alternative interpretation of Task Force One's major category statements is that they were intended as hypotheses or conditional statements but were incompletely or elliptically stated. In this interpretation, what the Task Force intended by category statement 1 was something like this, "A disadvantaged child is more likely to succeed in school if he has a sense of his own dignity and worth." If the task force intended this form of proposition in its major category statements, it meant that these statements were to be regarded as intermediate or proximate criteria while "success in school," left unspecified and undefined, is the implied ultimate criterion. If this is the case, then the measurement problem would begin by unpacking the ultimate criterion in its various dimensions, measuring these dimensions, then developing measures of the intermediate criteria, which measures would then be correlated both with the measures operationally defining the ultimate criteria and with the illustrative teacher behaviors.

I am going to assume that Task Force One did not intend their major category statements as hypotheses and that the ultimate criteria in the project are expressed in the statement of categories.

In moving toward the operational definition or measurement of the pupil outcomes implied in categories I-VI, I suggest, first, that Task Force Three eliminate categories III and V. As earlier suggested, the pupil behaviors underlying these categories may be very hard to measure, hence producing unfavorable cost-output relationships in the project. The elimination of these categories does not mean that the illustrative teacher behaviors subsumed under them should also be eliminated. The measurement of the teacher behaviors is separate from the present criterion problem. After eliminating categories III and V, focus might be placed on category IV. Measurement of the development of or changes in pupil classroom skills is relatively easy via testing. With respect to testing pupils, especially in elementary and junior high school, a heavy emphasis on reading, listening and speech skills would seem appropriate. The measurement of category VI might be accomplished by either an attitude scale, observation of pupil behavior or pupil interviews. My own strategy here would be to develop an attitude scale and validate it through observation, teacher appraisal and interview techniques. The measurement of pupil behaviors relevant to categories I and II should be difficult, but very interesting. The work would probably begin by listing the behavioral indicators of the characteristics asserted in these categories then working from these toward highly structured interviews or observation.

I do not wish to err in over-stressing pupil behaviors as the ultimate criterion against which teacher behaviors are to be validated, but if the project is to be a strong one, pupil behaviors or changes in pupil behaviors should ultimately be utilized as criteria.

Organization of Teacher Behavior Dimensions

The initial problem in assessing teacher behaviors in the project seems to me to be one of bringing a more nearly operational organization to the very great array of behavior dimensions brought forth in the Task Force One report and in the initial project proposal. Since the major categories I-VI in the report express the ultimate criteria in terms of pupil behaviors, I am assuming that these general categories will be retained, with recognition that categories III and IV probably will not be operationalized as measurable aspects of pupil behavior. Within these categories, a number of different ways of grouping or sub-categorizing teacher behavior are clearly possible. I am, however, going to select only one of these ways.

Teacher behavior may be conceptualized as having two basic dimensions: (1) teacher acts, which may be hypothesized to have a direct influence on pupils or parents, and (2) teacher characteristics, which may be hypothesized to have a direct bearing on teacher acts, but only an indirect bearing on the behavior of pupils or parents. These two dimensions are very similar to those employed by D. G. Ryans in separating the classroom behavior of teachers, as, for instance, observed on his observational scales X_o, Y_o, and Z_o, from the characteristics of teachers as, for instance, measured on his correlate scales X_{co}, Y_{co} and Z_{co}. The reason for this distinction is that the measurement of teacher acts and the measurement of teacher characteristics present different types of measurement problems, and, the assessment of teacher acts and measures of teacher characteristics serve different purposes.

The assessment of teacher acts, in their various dimensions, serves to operationally define intermediate or proximate criteria of teacher success on the ultimate criterion of pupil behavior. Teaching acts can be assessed, however, only when teachers teach, hence measures of teaching acts have little utility at many stages of teacher preparation, since no teaching is done. Measures of teacher characteristics, on the other hand, may serve either as predictors of teacher acts, (first order proximate criteria) or as direct predictors of pupil behavioral outcomes (ultimate criteria). When used in the latter manner, teacher acts may be omitted as proximate criteria, and direct associations established between teacher characteristics and pupil behavior, thus permitting teacher characteristics to be used as second order proximate criteria. The utility of measures of teacher characteristics lie in the fact that they do not presuppose that the teacher is actually teaching, hence, they are useful at those stages of teacher preparation in which no teaching is being done.

Utilizing the conceptualization described above, the first step in sub-categorizing the teacher behaviors listed under each category I-VI would be to separate teacher acts from teacher characteristics. The second step would be to classify teaching acts and teacher characteristics into subordinate categories. In this respect, the categories used on page 7 of the initial Project Proposal might be employed. Thus, both teaching acts and teacher characteristics would be subdivided into (1) a dimension dealing with interpersonal behaviors, (2) a dimension dealing with guiding and directing classroom learning and (3) a dimension dealing with personal-psychological teacher characteristics and teacher acts.

The third step would then be to subdivide each of the classifications stated in the preceding paragraph into categories very similar to those used as secondary heads (e.g. A.B.C.) under major category I-VI in the report. Teaching acts and teacher characteristics must of course be kept separate.

The fourth step would be to order the various teacher acts or teacher characteristics into categories according to the type of measurement or assessment most appropriate to that particular type of act or most appropriate to that particular characteristic. For instance Item II, D. 7, concerning whether the teacher acts promptly in correcting poor behavior can be observed by a classroom observor and could be ordered to an observational instrument, but item II, G. 1, concerning the development of personal home contacts is not open to direct observation but depends on teacher reporting and presupposes a device for use by a principal or supervisor on which the frequency and duration of the home contacts of each teacher can be recorded.

The fifth step would be to order the importance of various teacher acts, and possibly various teacher characteristics, according to the grade range in which the teacher is teaching. For instance item I, C. 7 is clearly more important for primary than for senior high school teachers.

Operationalization of Pupil and Teacher Behavior Dimensions

In this section I wish to schematize the notions presented in the preceding sections and to specify, insofar as I can, exactly what the measurement tasks are. Because the number of variables to be measured is large and because these variables fall on a number of different dimensions, I cannot treat them all simultaneously. Hence, I will have to treat them one aspect at a time. I do suggest, however, that Task Force Three draw up a large scale representation or master diagram showing the extent of its total measurement problem.

Conceptually speaking the first group of variables to be measured are those defining the ultimate criterion--pupil behavior. Procedurally speaking, the measurement of this group of variables will probably be last. As presently conceptualized, there are four main sets of variables in this group. The main sets of variables and some possible methods of measuring them are given in Figure 10. The methods of measuring these characteristics can undoubtedly be expanded and improved on by Task Force Three.

Figure 10 VARIABLES AND POSSIBLE METHODS OF MEASUREMENT

Pupil trait or characteristic describing ultimate criterion	Possible methods of measurement
1. (1) Student's perception of his own worth and dignity	1. Structured interview 2. Card sort, ideal vs. perceived self, perceived self vs. societal norms.
2. (II) Student's recognition and modification of values and behaviors that conflict with school culture	1. Recognition phase--structured interview 2. Modification phase--Ryan's Classroom Observation Schedule--Pupil Behaviors, Set 2, "Obstructive vs. Responsible pupil behaviors."
3. (IV) Student's development of classroom skills	1. Standardized achievement tests in reading and arithmetic in grades 1-9 2. Standardized test or performance test in each subject area in high school 3. Specially constructed tests of functional listening, speech, and written expression skills grades 1-6 or 1-9.
4. (VI) Student's perception of school and schooling	1. Specially constructed attitude scale, validated against teacher ratings of student approach-avoidance attitudes toward school

The second set of variables to be measured are teacher characteristics. These characteristics fall in one of three groups: interpersonal characteristics, characteristics relevant to guiding and directing classroom learning, and personal characteristics. The characteristics in each group may be relevant under one or more of each of the six major categories (I-VI) teacher behaviors in section III of the Task Force One report. Figure 11 lists on the left and according to groups, what appear to me to be among the most relevant characteristics in the report. In the middle I have checked the teacher behavior category or categories to which I believe the characteristic to be relevant, while on the right I have listed some possible methods of measurement.

Figure 11
CHARACTER BEHAVIOR CATEGORIES AND POSSIBLE METHODS OF MEASUREMENT

Characteristic	Teacher Behavior Categories						Possible Measure
	I	II	III	IV	V	VI	
Group 1. Interpersonal Characteristics							
A. "Warmth" in relationship with others	✓			✓			1. Scale X_{co}, Teacher Characteristics Schedule (TCS), "Friendly, understanding vs. cool, aloof behavior." 2. Scale B, TCS, "Child-centered vs. subject centered viewpoint." 3. Minnesota Teacher Attitude Inventory.
B. Authoritarian, dogmatic, vs. Democratic, tolerant	✓						1. Rokeach's Dogmatism Scale (Measure of authoritarianism in personality) 2. Scale R_1, TCS "Favorable attitude toward democratic pupil practices."
Group 2. Characteristics relevant to guiding and directing classroom learning.							
A. Systematic, steady, responsible, business-like behavior.		✓		✓			1. Scale Y_{co}, TCS, "Responsible, business-like Behavior."
B. Knowledge of Subject or skill areas taught e.g., reading, language arts, arithmetic-mathematics.				✓			1. For high-school teachers, number of course hours X grade point in subjects to be taught. 2. Achievement tests in skill or subject areas.
C. Differentiates knowledge of child and adolescent growth and development by social class.			✓	✓	✓		1. Content valid tests will probably have to be developed during project.
D. Ability to diagnose pupil learning difficulties and ability to sequence learning materials-"Problem solving" abilities				✓			1. Turner's "Mathematics Teaching Tasks" and "Teaching Tasks in Reading" (For Elementary School only).

Characteristic	I	II	III	IV	V	VI	Possible Measure
E. Scope of knowledge and skill in using presentational techniques and learning materials demonstrations, concrete materials, films, etc.				✓			1. Paper and pencil, and performance testing. 2. Possibly, scale Z_{co}, TCS, "Stimulating, imaginative Behavior."
Group III, Personal Characteristics.							
A. Commitment to teaching disadvantaged.			✓		✓		1. An inventory validated by discriminating between experienced teachers rated high in commitment by supervisors or colleagues and those rated low in commitment. Inventory items will have to be constructed during project.
B. Emotional Adjustment	✓						1. MMPI, 16 PF or other measures. Measures should be specifically validated on criterion of distinguishing teachers regarded as stable in inner-city schools from those considered unstable, mere deviation from middle class norms may not be adequate.

The third set of variables to be measured are teacher acts. As earlier suggested, teacher acts may be placed in the same groupings as teacher characteristics, acts of centrally interpersonal nature, acts bearing on guiding or directing classroom learning, and acts indicative of personal characteristics. Within these groups, teacher acts may be organized according to the secondary heads in the Task Force One report. A specific problem at this point lies in the language in which the specific illustrative teacher behaviors are cast in the report. In general, the illustrative behaviors should be specific statements of observable indicators or of concrete evidences. Yet, it appears to me that less than 50 per cent of the behaviors stated can function as indicators. Many of the behaviors seem only to be prescriptions. How Task Force Three is to get around this problem presents a genuine difficulty. I suggest, however, that one approach might be to go through each specific illustrative behavior with two questions in mind: (1) can this behavior be observed? (2) If so, would it be likely that a classroom observer could observe it, or would it be observable to or capable of verification through a supervisor or principle? If the behavior cannot be observed, it may be measureable as part of a teacher characteristic, if it can neither be observed nor inferred via measurement, it should be discarded. If it can be observed, by whom it might be observed should be specified, since this sets the stage for ordering items to observor scales rather than supervisory appraisal scales. Finally, a preliminary specification of the grade levels at which the behavior seems most important is needed.

In Figure 12, I have attempted to show how the variables in this set might be ordered to get them closer to operationalization. In this figure, I have used only the behaviors listed under category I, "A child needs a sense of his own dignity and worth," since these are adequate for illustrative purposes. In the left-hand column appear the various secondary heads and numbers of the specific illustrative teacher behaviors. If a particular item appears to me to need additional working on, I have noted this beside the behavior. I have not added additional behaviors under the secondary heads, but in many cases, more behaviors or indicators could be added. In the next set of columns appear the major groups of acts to which the behaviors might be ordered. I have differentiated the "interpersonal" and "directing and guiding learning" categories into acts directed toward pupils and those directed toward parents. A check in one or more of these categories indicates that I consider the behavior in question relevant to the category. In the next set of columns appear grade levels. A check in one or more of these columns indicates that I consider the behavior relevant in those particular grades. Finally, the set of categories on the right give methods of obtaining data about the teacher acts. The "classroom observation" category presupposes trained observers using an observational schedule developed during the project. The "supervisory appraised" category presupposes a rating device for use by principals or supervisors. Use of the "measure only as characteristic" category means that I consider the behavior in question primarily as a trait, not an act. Use of the "unlikely to be observed" category means I am not clear as to who could observe the behavior in reasonable time limits and on random occasions. Finally, in the "other category"I have noted the names of investigators and instruments that seem to get at about the same behavior as listed in the left hand column. I have not, of course, listed all possible instruments, but only those with which I have some familiarity.

Figure 12

POSSIBLE ORDERING OF VARIABLES

Teacher Acts	Behavior Groups						Grade Level				Methods of Obtaining Evidence				Other
	Interpersonal--Pupils	Interpersonal--Parents	Guiding Learning--Pupils	Guiding Learning--Parents	"Personal" Behaviors		1 - 6	7 - 9	10 - 12		Classroom Observation	Supervisory Appraisal	Measure only as Teacher Characteristic	Unlikely to be Observed	
I. Sense of Worth and Dignity															
A. Encourage children to speak at greater length	✓						✓	✓	✓		✓				Flanders, Categories 8 and 9
1. ? (Too specific)														✓	
2.	✓						✓	✓	✓		✓				OScAR, Flanders Category 1.
3.	✓		✓				✓	✓	✓						Flanders, Category 3
4.			✓				✓					✓			Flanders, Category 9
5. ? (Too general)															
B. Demand, facilitate and commend pupil achievement															
1.	✓						✓	✓	✓		✓				
2.			✓						✓			✓			
3.			✓				✓	✓			✓	✓			
4.			✓						✓		✓	✓			
5.													✓	✓	

Figure 12 continued

Teacher Acts	Behavior Groups					Grade Level			Methods of Obtaining Evidence				Other
	Interpersonal--Pupils	Interpersonal--Parents	Guiding Learning--Pupils	Guiding Learning--Parents	"Personal" Behaviors	1 - 6	7 - 9	10 - 12	Classroom Observation	Supervisory Appraisal	Measure only as Teacher Characteristic	Unlikely to be Observed	
C. Regard for and interest in pupils as individuals													
1.	✓					✓				✓			
2.	✓					✓	✓	✓	✓				Flanders, Category 7
3.	✓							✓		✓			
4.	✓					✓	✓	✓	✓				
5.	✓					✓	✓		✓	✓			
6.	✓					✓	✓	✓		✓			
7.	✓					✓				✓			
8.			✓			✓	✓		✓				
9.			✓			✓				✓			
10.		✓		✓						✓			
11. ? (school responsibility)													
D. Instructional stress on differences and likenesses in cultural background													
1.			✓			✓	✓		✓	✓			
2. ? (too specific)												✓	

Figure 12 continued

Teacher Acts	Behavior Groups					Grade Level			Methods of Obtaining Evidence				Other
	Interpersonal--Pupils	Interpersonal--Parents	Guiding Learning--Pupils	Guiding Learning--Parents	"Personal" Behaviors	1 - 6	7 - 9	10 - 12	Classroom Observation	Supervisory Appraisal	Measure only as Teacher Characteristic	Unlikely to be Observed	
E. Commitment . . .											✓		
F. Develop and use feedback techniques													
1.			✓			✓	✓	✓					
2.	✓					✓	✓	✓		✓			
3.	✓					✓				✓			
4.	✓					✓	✓	✓	✓				Flanders, Category 3
G. Set tasks and goals--(needs better explication, more indicators)													
H. Positive use of task failures (needs better explication, more indicators)													
I. Examine oneself and relate more productively to pupil's culture													
1. ? (What does it mean?)													
2.			✓					✓		✓			
3. ? (too general)											✓		
4.		✓				✓	✓	✓	✓	✓			Ryans, Scales Y_o, Z_o.

With respect to the list behaviors given in the report, I feel that one of their major weaknesses is that they do not connect well with other instruments. Task Force Three should make an effort to study observational instruments, especially Ryan's original glossary to the classroom observation record (pp. 86-92, Characteristics of Teachers), Flander's categories for interaction analysis, and the items on the OScAR (obtain from Dr. Medley). Many of the behaviors listed by Task Force One could undoubtedly be recast so that they relate to the behaviors used in available instruments, thus saving the time and expense of constructing new instruments. Some new observational instruments will undoubtedly have to be constructed, but the number should be minimized.

After the illustrative teacher behaviors have been organized by a method similar to that shown in Figure 12 (a card-sort method would serve as well or better), they may be ordered to relatively homogeneous groups, according to multiple dimensions, e.g. "group J," defined by those teacher behaviors associated with the child's sense of worth and dignity, which are interpersonal in nature, which are appropriate to elementary school teaching, and which may be measured through classroom observation. When these groups are formed, they will essentially contain the items to go into a particular section of a particular observation schedule for use with preparatory or experienced teachers. Exactly how an observor might record his observations, how the observations are to be quantified, the size of the sample of teacher behavior to be taken, and the reliability of the observations, are matters that will have to be worked out in the project. I might point out, however, that most teachers teach 900 hours a year, and that a 1 per cent sample will require 9 hours of observation, as sample size decreases, reliability may also decrease. Certainly I would not care to stand on observational data based on say a 1/10 of 1 per cent time sample.

Summary

In this section I want to make a general summary of categories and relationships I have discussed by using a solid rectangle as shown in Figure 13. On one dimension of this rectangle lie the pupil behaviors used as ultimate criteria. On a second dimension lie teacher acts, ordered to homogeneous groups. These groups represent proximate criteria of the first order or observational criteria of teacher behavior. On the remaining dimension of the rectangle lie measurable teacher characteristics. These characteristics represent proximate criteria of the second order.

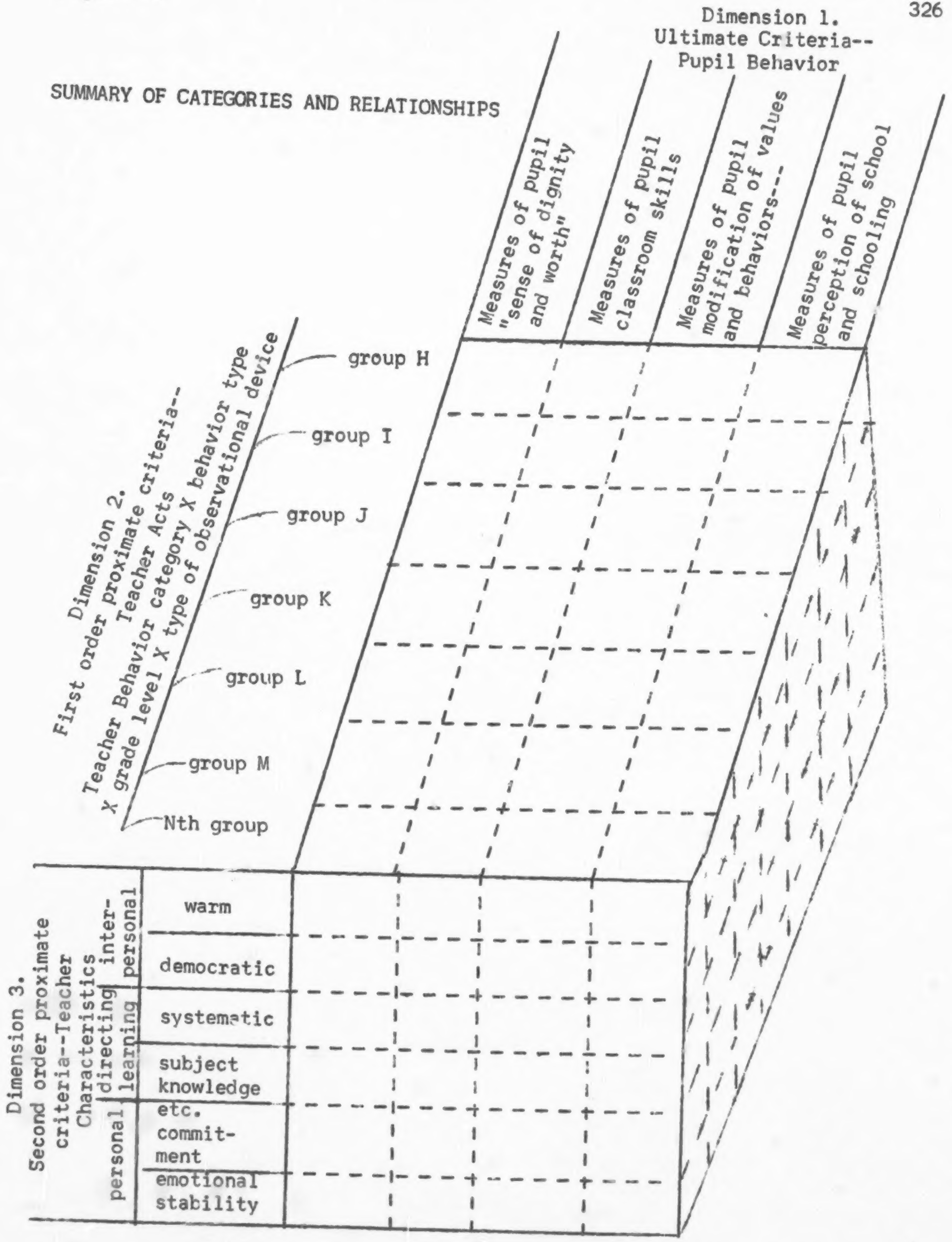
As I see it, the total measurement problem in the project consists not merely of developing measures, but also of showing how these measures relate to each other. If teacher acts are to be the criteria on which the outcomes of the project are tested, the groups of acts shown on Dimension 2 must be associated with one or more of the pupil behavior criteria in Dimension 1.

If teacher characteristics are to serve as criteria on which project outcomes are tested, then the characteristics shown in Dimension 2, or else with the criterial pupil behaviors in Dimension 1, or preferrably with both.

The total measurement task is truly a staggering one. I feel it can be managed, however, if it is split up among different cities or groups of cities. One way to divide the tasks would be by dimensions, with each of three groups taking one dimension. A second method might be for each group to take certain aspects of each dimension, for instance, (1) teacher acts under major category IV, which are interpersonal in nature and which are germane to the elementary school; (2) pupil behaviors related the developing classroom skills, and (3) interpersonal teacher characteristics. The latter method might be a particularly good one since the Dimension 3 measures would be employed first in the project, Dimension 2 measures next and a Dimension 1 measures last. Each city or group of cities could then program or sequence its specific measurement tasks according to a time schedule.

Figure 13

SUMMARY OF CATEGORIES AND RELATIONSHIPS


Dimension 1.
Ultimate Criteria--
Pupil Behavior
Measures of pupil "sense of dignity and worth"
Measures of pupil classroom skills
Measures of pupil modification of values and behaviors---
Measures of pupil perception of school and schooling
Dimension 2.
First order proximate criteria--
Teacher Acts
Teacher Behavior category X behavior type
X grade level X type of observational device
group H
group I
group J
group K
group L
group M
Nth group
Dimension 3.
Second order proximate criteria--Teacher Characteristics
inter-personal
directing learning
personal
warm
democratic
systematic
subject knowledge
etc.
commit-ment
emotional stability

APPENDIX C

REACTION TO TASK FORCE ONE'S REPORT

Harold E. Mitzel

By way of introduction, it seems to me that the staff and consultants of the School-University Teacher-Education Project are engaged in an effort of signal importance to the education of children, not only those disadvantaged youngsters who live in the inner city but pupils who attend public schools everywhere. I salute those who conceived of the use of task force groups, each with a distinct role to play in the improvement of education in the great cities.

My remarks are divided into two main sections: a reaction to the behavioral taxonomy and a reaction to the papers provided by the three consultants. At the end I offer a miscellaneous collection of notes triggered by smaller topics in the report of Task Force One.

Remarks on Taxonomy

The taxonomy of behaviors represents a good start on the measurement of teaching performance, but I understand that my role is to provide a critique of it, in the hope that it might be improved during the deliberations of Task Force Three.

In the first place, in order for the taxonomy to be a useful, although unproven, guide for teacher preparation, its organizational theme would need to be changed. The present organization of behavior around children's needs (particularly disadvantaged children) is a useful presentation mode for educational philosophers, but it does not correspond to the decision-making demands placed upon teachers as they operate from moment to moment in the classroom. It would, I believe, be more useful for teacher-preparatory purposes to separate out those so-called "behaviors" that deal with the selection of curriculum materials for the disadvantaged from those behaviors that are germane to classroom interaction. The classroom interaction behaviors should be organized so that they form meaningful dimensions to teacher-education students. Let me offer a concrete example. A dimension called Teacher Eliciting Behavior could be constructed from a large group of separately observable teacher acts. The present taxonomy contains a number of suggestions such as "Utilize student-prepared materials." Trying to teach the beginning student teacher each eliciting behavior separately as a unique entity is like trying to learn to write by memorizing the dictionary. Another dimension might be called Responsiveness to Pupil-initiated Behavior. It could be argued that disadvantaged children, because of the psychological poverty of their home environments, should be surrounded by extremely responsive adults in the school environment. It is my opinion that typical teacher-behavior patterns based on some finite set of dimensions can best be acquired during a carefully controlled practicum in which the learner (an intern or student teacher) exhibits behavior and is provided immediate feedback as to its correctness. Such a plan as that advocated here would require a complete reorganization and reorientation of the student-teaching experience by colleges and participating public schools. Most current student teaching is focused on the familiarization of the student with the school environment and offers the student little or no supervised training in modifying his in-class behavior.

A second important problem with the taxonomy is its omission of behavior specifications for teachers of disadvantaged secondary-school pupils. Almost all of the suggested behaviors are keyed to the early elementary grades; e.g., "the birthday chair." Providing teachers who are equipped to meet the educational needs of disadvantaged high-school children may be even more important than meeting the needs of elementary children with similar handicaps. We hear a great deal these days about salvaging potential high-school dropouts. I would think that Task Force Three would want to measure some changes in urban high-school teaching that would be preventative in nature as schooling relates to this kind of social problem.

Third, I could not locate in the taxonomy a clear set of recommended teacher behaviors that presumably foster cognitive skill development on the part of pupils. It may be that everyone connected with the School-University Project assumes that teachers all know how to guide pupils in the development of critical thinking, conditional inferring, reasoning by analogy, etc. But the evidence suggests that this is not a safe assumption. B. O. Smith and his co-workers have called our attention to the paucity of logic in the instructional episodes of secondary school classroom behavior. Gage's comments on this logic are very much to the point. Information of this kind is not typically included in teacher-education "methods" courses, and, because the instruction of student teachers has been largely turned over to practitioners (for economic reasons) called cooperating teachers, there seems to be no way to provide instruction systematically in this critical area of teacher development. In our zeal to make disadvantaged children feel loved, wanted, and appreciated, we must not overlook the fact that the school's primary mission is to provide them with the intellectual skills that will enable them to escape their barren environments. We can probably overdo the social climate bit, making the disadvantaged more comfortable with their status, and inadvertently neglect the cognitive aspects of schooling that help us all move toward the "great society."

Remarks on Consultants' Papers

Professor Gage's paper is extremely valuable for its synthesis of the main ideas from the research literature on teaching. The sources he cites, however, present an uneven picture for placing confidence in generalizations about teaching. I am particularly impressed with the point that the five desirable behaviors he cites are not adapted to the particular needs of schooling for disadvantaged children. Rather, the behavior themes developed by Gage would appear to be desirable teacher behaviors in suburban schools, rural schools, private schools, prison schools, armed forces schools, etc. It seems to me that Task Force Three will want to concentrate upon teacher behaviors that are unique for the education of the disadvantaged. For example, the warmth category cited by Gage has, I believe, some potential for being misunderstood by practitioners. In a slum school it is easy to confuse sentimentality for warmth. It can be argued that because of the psychological instability of the homes from which disadvantaged children come teacher behavior should be oriented toward friendly firmness. A friendly, firm teacher will project a model of adult authority that may be lacking in the disadvantaged child's home life. Because the existing research on teacher behavior lacks direct relevance for the educational needs of the disadvantaged child, any list of "desirable behaviors" must be viewed as tentative. I hope that the School-University Project will engage in some careful experimentation in this area. It is crucial that any set of teacher behavior guidelines developed by Task Force Three be subjected to empirical validation in classrooms inhabited by disadvantaged children.

Dr. Ellis' paper reviews sociological and developmental psychology research findings that should have many implications for modifying teacher classroom behavior. His paper reports findings that are relevant to the disadvantaged child, but to generalize and apply these findings to such children in the school situation is an extremely long inferential leap. Ellis seems to believe that, if teachers were "trained in the knowledge of the needs, limitations, and unique strengths and weaknesses (of disadvantaged children,)" we could expect a great upsurge in the quality of education for these children. My own view is that understanding is not enough. What we desperately lack is solid experimental evidence of the relationship between explicit patterns of teacher behavior and child performance.

Professor Gordon's paper strikes me as being very helpful in designing experiments dealing with the education of the disadvantaged child. He points most clearly toward the conditions, physical states, psychological orientations, and attitudes that make socially handicapped children different from those in the middle class culture. The implications of these differences for teacher behavior and curricular innovations should be fairly easy to formulate for experimental testing. A logical next step that follows from Gordon's paper is that schools are going to have to reorganize themselves. They cannot depend upon improved preparation of teachers to meet the educational needs of children from disadvantaged homes. The special needs of these children are going to require the addition of an array of educational specialists in the school, a group of professional workers who can diagnose learning problems and design educational experiences that will solve those problems. The nation has recognized the special educational needs of children who are physically and mentally handicapped. It will eventually have to recognize the special needs of the socially and economically handicapped as well.

Some General Observations

Teaching as envisioned in the taxonomy demands far more than the typical classroom teacher can give with only four years of teacher preparation, or five for that matter. To meet the special educational problems posed by large numbers of disadvantaged children, the schools are going to have to abandon that sacred cow called the self-contained classroom. Many educators, including the writer, feel that the self-contained classroom in its origin was an economy and administrative strategem. As a way of organizing schools it has been an utter failure on the criterion of the individualization of instruction. Surrounding teachers of so-called self-contained classrooms with minor subject-matter specialists and other workers has helped, but the basic problem of providing an administrative structure that fits educational demands has not been employed. The diagnostic and remedial opportunities presented by disadvantaged youngsters only serves to heighten the need for a sweeping innovation in school organization and staffing.

There is in the Task Force One report considerable emphasis on the possession of "correct" attitudes by teachers of the disadvantaged. In some places it is expressed as commitment. I am inclined to think that an inner city teaching corps made up of evangelists and "do-gooders" might not provide the best education for children. Certainly teachers of the disadvantaged need to believe in the importance of children's education, but I distrust special attitudinal requirements for teaching the disadvantaged. Like loyalty oaths, such requirements may only serve to confuse our judgment regarding who is an appropriate practitioner.

The report suggests that character traits and certain aspects of teacher personality are so pervasive that they influence all aspects of the teacher's relationships with children. Further, the report suggests that these characteristics are discernible (therefore measurable) when a person is admitted into a teacher preparation program. I part company with the report on this point. It seems to me that the reliable pre-training, preservice measurement of teacher personality has essentially eluded investigators for half a century. We have not been able to show in any systematic way that personality test scores of teachers are consistent with an objective assessment of classroom behavior patterns. Inventories like the Minnesota Teacher Attitude Inventory, to be sure, have shown a relationship to a rating criterion, but these findings suffer from the fact that this instrument was validated in part against a similar rating criterion. Thus, any factor such as general personal attractiveness accounting for a portion of the variance of the rating criterion, would also account for a portion of the test variance of the Minnesota Teacher Attitude Inventory. Task Force Three would do well to avoid sinking its resources into the elusive personality measurement area until better tests have been developed--tests that yield stable measures and show a correspondence to behavior.

One interesting hiatus emerges from the Task Force One report. The report points to the special intellectual and educational needs of disadvantaged children. Experience shows that these needs can best be taken care of by segregating handicapped learners from the non-handicapped in schools. However, these same children predominately come from minority groups of Negro, Mexican, and Puerto Rican ancestry. And there seems to be general agreement that the social and cultural needs of minority group children are best served by integrating them into classes with middle-class youngsters. The schools are thus caught in the middle of a dilemma. If they move to segregate disadvantaged children in order to improve their education, they risk worsening the social integration of their charges.